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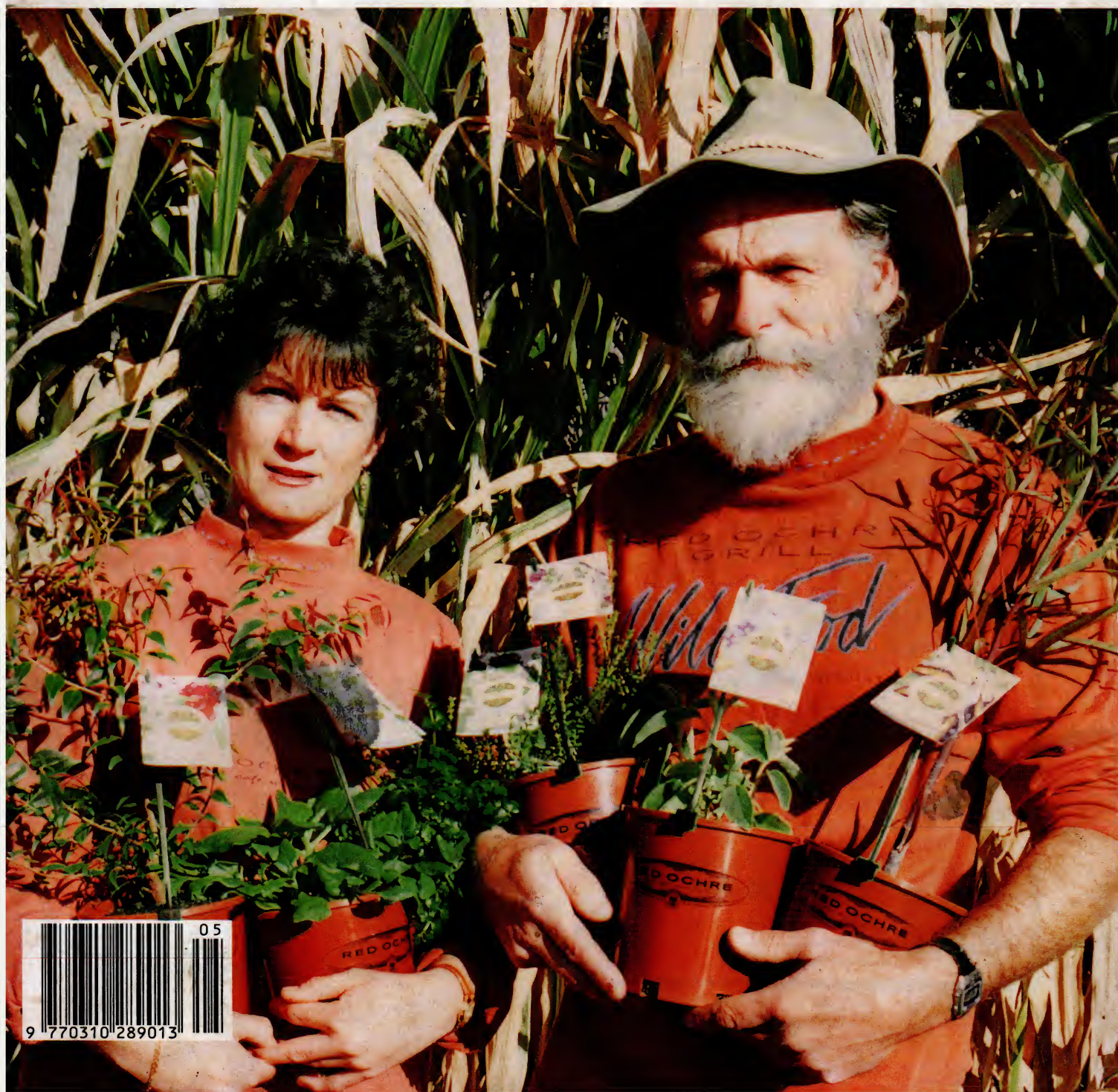
Australian and New Zealand Edition

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Grass Roots

- *Urban Permaculture*
- *Growing Bush Tucker • Easy Crafts*
- *English Leicester Sheep • Natural Insulation*
- *Recycling Bathroom Tiles • Christmas Cakes*



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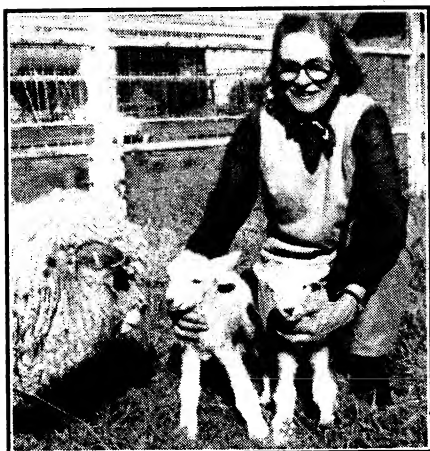
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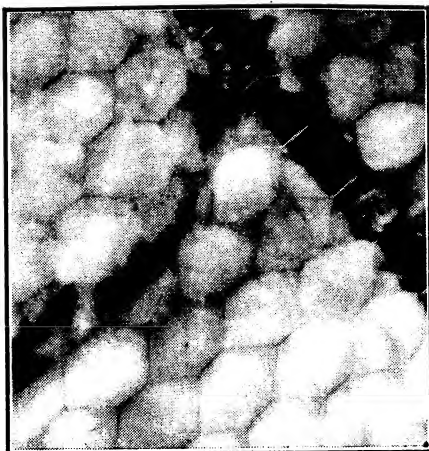
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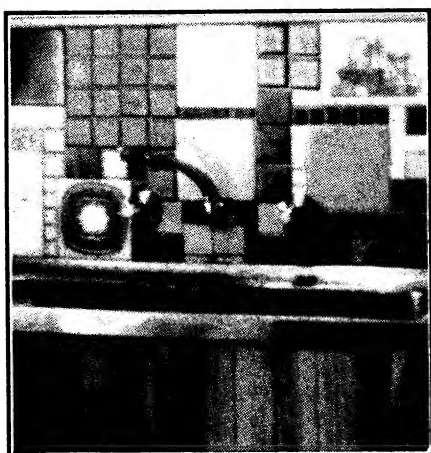
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Front Cover: Dianne and Roger Fielke, from Australian Native Produce Industries nursery, offer *Grass Roots* readers an opportunity to grow bush tucker. See page 13 for details. Cover nursery photos by Melanie Brehaut.

Back Cover: Tiny spaces don't limit your ability to grow food in an urban setting. There are techniques and food plants for all situations. See Urban Permaculture page 6 and Fruit Trees for Small Areas page 19.

* * *

Edited by Megg Miller and Mary Horsfall.

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GUMNUT GOSSIP

by Megg Miller.

'What do we have for GG this time?' I enquired of my co-workers. 'Why, the new carpet, fridge and the colour cover,' Kim answered, surprised I had forgotten the most important highlights of the last two months. While I may have prioritised the order differently, with the new cover at the head of the list, I can appreciate my fellow workers' pleasure in the smart office carpet and satisfaction with opening and closing the fridge door without belting the daylight out of it. After years of inconvenience with the shoddy old carpet we decided we would just have to face the mammoth task of moving everything out and then back in again. And mammoth job it was, with no less than a dozen filing cabinets, an equal number of tables, photocopier, computers, printers, shelving, an uncountable number of boxes of books and magazines and a heavy, old sixties fridge.

The resultant comfort and chic appearance of the office have made the disruption and hard work worthwhile, the additional warmth and thus energy conservation being a welcome benefit. The old fridge was such a problem for David and I to manoeuvre down the office steps that I wasn't surprised he ordered a lighter, more recent second-hand model when he went through town that afternoon. I confess to missing the lengthy sighs and grumblings of the old fridge's motor, but what joy to close a door and have it stay fastened. The atmosphere is more relaxed here since our upgrade in creature comforts, but as well we now have a watertight excuse when something goes missing: 'I'm sorry, it must have been misplaced during our recent office refurbishment. We'll check through one or two of the unpacked boxes.'

No doubt each and all are stunned by the new colour cover and are asking yourselves, 'What's next?' Nothing, that's the end of the changes we had in mind. For years now we've felt frustrated by the gorgeous colour piccies that have come in and been reproduced in dull black and white in the magazine. The aliveness and rich array of colours has not translated well and we've felt disappointed we couldn't share with you the beauty we've had the privilege to enjoy. This has particularly been the

case with gardening and bush shots. As well, the space we had available for the cover photo was restrictive and frequently we bypassed splendid shots because they didn't fit the vertical shape and needed cropping severely. We feel sad to see the passing of the old design, it conjured up the alternative nature of the early seventies when it was designed and distinguished GR from other magazines on the newsagent's shelf. However, its style is outdated and, more importantly, we have many attractive and talented contributors and we want to celebrate their successes and show them off to the rest of Australia. A large colour photo does this more effectively than our previous modest design.

Last issue, you may remember, contained our survey and we appreciate the time and effort readers put in to get their completed questionnaire away to us. We clearly made a mistake in making it part of the magazine text – no one wanted to pull it out and lose the Feedback letters on the back. Lots of people cared enough to go and photocopy the two pages off, and a number, bless their wonderful hearts, wrote it all out by hand, both questions and answers. If you're reading this feeling red faced and guilty because you didn't get around to answering it, don't feel too bad, we have been so busy organising the material in this issue that there has been time for only a cursory glance. We will be happy to receive further contributions over the next few weeks and don't forget that you can mail the two pages post-free provided you address it 'Reply Paid 02, Grass Roots Survey, PO Box 242, EUROA 3666.' By including the reply paid number you do not need to include a stamp – it's on us!

One aspect of the survey that we didn't make clear last issue was our assurance of maintaining contributors' privacy. We have an ongoing policy of keeping subscribers' details confidential and have never considered making this material available to anyone else. This confidentiality extends to our Grassified advertisers and Feedback writers when requested and we sometimes receive abuse for this from people wanting to make quick contact or who can't be bothered writing. Let me reiterate – the survey



replies are to assist us produce a magazine which meets your needs, and the information provided will be treated with the strictest confidentiality. I am not aware of any breeches of privacy in our twenty-two years of publishing.

So what generalisations can be made from our quick glance through the replies? Most of the respondents love the magazine the way it is but want more of everything: more issues per year, more pages, bigger articles. Just about everyone enjoys Feedback and not surprisingly wants more of it. Several people described it very aptly when they wrote, 'It is the heart of the magazine'. A surprising number of people indicated disenchantment with newspapers, many writing that they refused to read them because they perceived them to be misleading and full of lies, and depressing. An amazing number of names were put forth to describe the home-making role, including domestic goddess (our favourite), domestic science, just another mother and house slave. Lots correctly pointed out they were not housewives, being 'married' to a partner and not the house. GR was responsible for inspiring many of these people to look for that special block of land and make the move: 'Living a materialistic, flash lifestyle has never held any interest for us, but living a happy, interesting, fulfilling, quality family life is our main objective and we feel *Grass Roots* is the perfect companion to help us obtain this.'

I'd like to finish with one snippet that may not be politically sound today, but we're sure was meant inoffensively and we reproduce with that in mind: 'My husband once said to a friend who wanted to borrow *Grass Roots*, 'I'll loan my wife but not GR – go to the library or buy your own!' I agree with him, a wonderful reference library.'

URBAN PERMACULTURE

by Margi Jackson, Williamstown, Vic.

Margi Jackson has lived most of her life in Williamstown in the western suburbs of Melbourne. Although there have been times when she's been tempted to move to a country acreage and pursue a self-sufficient lifestyle, she has made a conscious decision to settle for an urban lifestyle. Her reasoning is that cities are here to stay, and that the existing infrastructure of cities and suburbs can be positively utilised while working towards building more self-reliant communities. Urban permaculture is about improving our immediate environment, lessening the impact that cities create by reducing our reliance on markets outside the city and by generating less waste output.



I purchased my property here in Williamstown about 20 years ago. The house has a narrow frontage, but a deep backyard with good north aspect and maximum sun. When I moved here there were just two trees on the block: a cherry plum and a fig tree (both now of magnificent proportions!); the rest was a wilderness of couch and kikuyu grass, with a rampant morning glory vine clambering over everything.

The very first step was to rescue some hens from a battery farm and house them in a derelict chook shed already on the block. A portable fence was set up and the chooks went to work – clearing the grass, scratching and turning over the soil for the first crops. In the early years the emphasis was on vegie growing, and grapes, passionfruit

and an apricot tree were planted. Over the years I've spent a lot of time overseas and the house has been rented out. I've generally returned to a wasteland of weeds and have had to start again from scratch (oops!) with the chook tractor principle each time. Indeed, the chooks have always been a pivotal element around which the garden revolves. Instead of the slower process of composting, household and kitchen scraps (plus those from friends, neighbours, local fruit shops and restaurants) are rapidly recycled by the chooks into eggs, manure and mulch. Allowed to range, they do an efficient job of controlling the destructive pest and grub population.

I've always been an organic gardener, interested in companion planting,

chemical-free gardening etc. In a sort of natural progression over the years, I noticed that the garden began to self-manage. Observation and experience showed that, left to their own devices, many plants would self-seed and perennialise themselves. Refraining from digging and thereby destroying soil structure and dispersing seed, aided this process (and made for much less work!).

It was at about this time (the mid eighties) that I first came across the term 'permaculture'. I was attracted to the integrated philosophy of gardening and sustainable land and resource use that permaculture presents and I began to concentrate more on growing fruit trees, perennial fruits, vegies and herbs for on-going production and ease of maintenance.

nance. I read *Permaculture One* and *Two*, but found some of the concepts difficult to grasp. Clarification came with *Introduction to Permaculture* and the video *In Danger of Falling Food* in which Bill Mollison presents the concept of permaculture in an entertaining and accessible way.

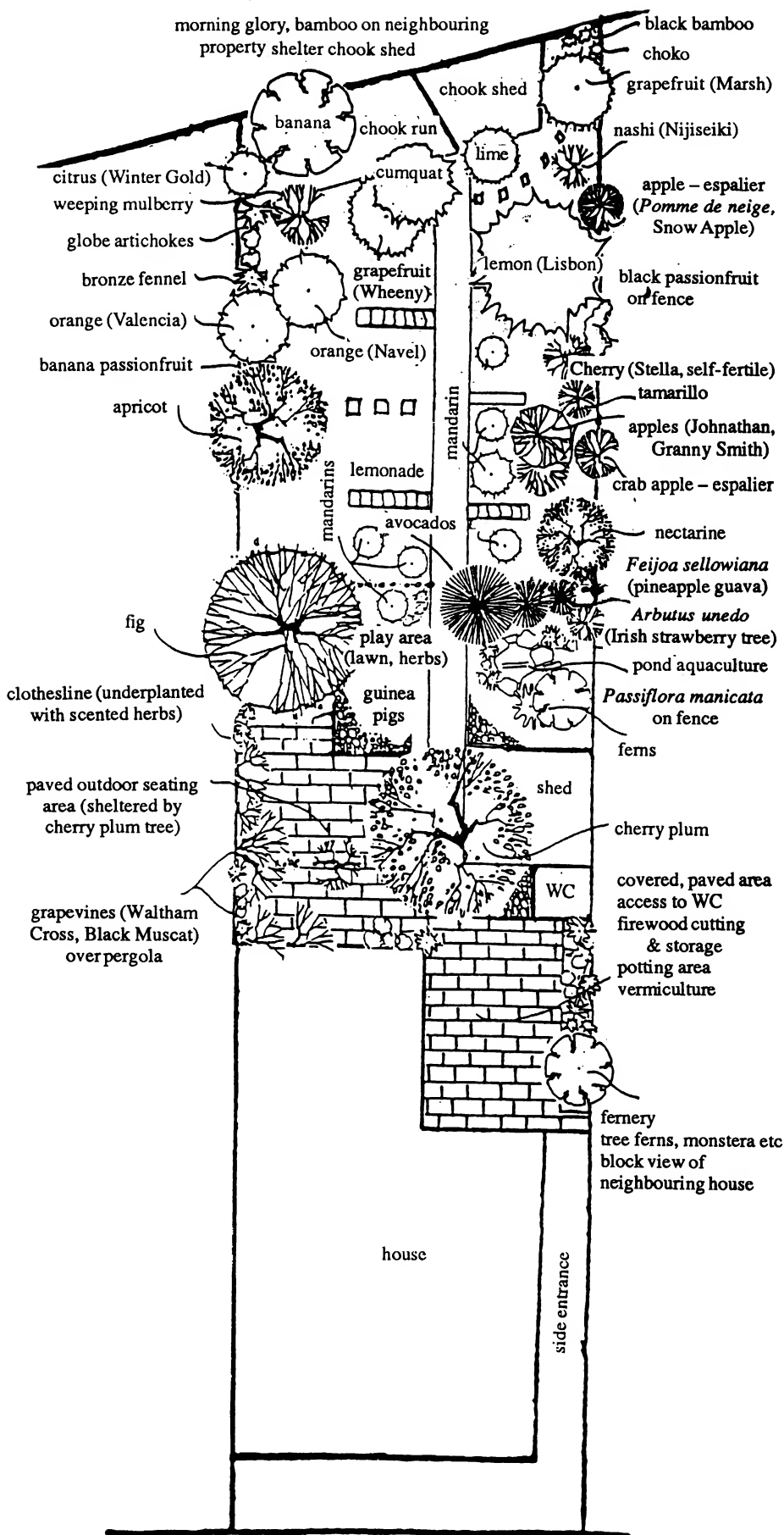
Following the basic principles of permaculture, I began to consciously design to make maximum use of my block.

By observing and making useful connections between house and garden, I have planned and planted for both efficient use of space and my own energies. Starting from the back door, everyday greens and herbs are planted for easy access. No more trekking down the back in the rain for a few salad ingredients. Vegetables, herbs and flowers (including self-seeding annuals) are randomly and closely interplanted to promote useful connections. Close plantings suppress weeds and both insulate and protect soil from moisture loss. Mixed plantings and vegetables allowed to flower and go to seed confuse unwanted pests and attract beneficial predators such as hoverflies and lacewings. Forage crops (amaranth, comfrey, buckwheat) are planted in and around the chook run and I pluck excess leafy vegies for the chooks on my way to collect the eggs. All available space has been utilised by 'stacking' plants: the vertical growing of espaliered trees and vines on fences and up and over the chook shed.

By making use of microclimates created in the garden by adjoining structures, I have managed to create some productive niches while turning seeming problems into solutions. An ugly neighbouring tin shed provided shelter and radiated heat enough to grow a fruiting banana and now an avocado which is nearing its first fruiting season. The shed also provides support for (and is somewhat disguised by) a beautiful flowering passionfruit. Only recently, with the completion of a block of units on the rear (south) boundary, I've gained wind shelter and sun and heat reflection from a light coloured masonry wall. Rather than regarding it as an eyesore, I see the benefits as potentially enormous. Maybe I'll have a go at growing a mango tree in Melbourne!

My garden is now approaching the perennial food forest I aspire to, and is both productive and aesthetically pleasing, with its fruiting trees (30 at last count), vines and bushes and vegetables

Plan of Permaculture Backyard



and herbs. Water bodies (ponds and troughs) feature and provide cress and waterchestnuts as well as nutrient-rich water for pot plants. The garden provides us with a range of foods over most of the year, with excess for preserving, bartering and giving away.

As well as producing food, I try to provide for our other needs by 'cycling': the use and re-use of resources that come on site before they leave the site as waste product. Rainwater is harvested for re-use and the laundry rinse water is diverted to larger trees. The indoor 'pee-potty' is great on cold winter nights when we dread visiting the outdoor loo and fresh urine is good for nitrogen-loving plants. I scavenge as much firewood as possible (there's heaps of waste wood to be found round the suburbs if you keep your eyes peeled). Our wood heater warms the house, is great for cooking on over winter (keeping fuel bills down) and the wood ash is returned to the garden where it's good for deterring slugs and snails from leafy vegetables and for scattering over pear and cherry slug to smother them. We keep our nonrecyclable rubbish to a minimum. The bin goes out for collection once a month and we're always aiming to reduce this.

By having made a personal decision to opt for food production and a measure of self-reliance within a limited urban area I'm trying to take at least partial responsibility for some of life's basic necessities, while also using and re-using resources so as to reduce waste output as far as possible. Productive and ecologically sustainable use of the land available to us is a basic principle of permaculture. Envi-

ronmental problems are essentially the outcome of individual actions multiplied many times over, and the city, by definition, has an enormous impact in terms of consumption and waste output. We can all take some responsibility for lessening this impact, both as individuals and as members of the wider community, and work towards restoring some sort of balance with our surrounding environment.



This urban backyard supports a thriving permaculture garden providing a range of food for most of the year, including some 'tropical' species in microclimate niches.

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TUSSIE-MUSSIE

by Kim Fletcher, Launceston, Tas.

Tussie-mussies are small fragrant posies of herbs and flowers which may or may not reflect a message. In centuries past people gave special meanings to some of the plants around them so that anyone aware of the meanings could send secret messages without the need to write them down.

It was a perfect way for lovers to express their feelings while under the constant surveillance of chaperones – assuming of course that the recipient was 'au fait' with this language of flowers (and the chaperone was not).

Flowers such as the rose, periwinkle, pineapple sage, and stocks could be used to express love, sweet remembrance, perfection, and lasting beauty. Similarly, herbs such as mint, borage, marjoram, and fennel could encourage cheerfulness, courage, happiness and strength.

Of course, not all plants necessarily expressed nice sentiments, with almond laurel meaning perfidy, amaryllis – haughtiness, lobelia – malevolence and foxglove reflecting insincerity.

There are a number of books which give lists of flowers and their meanings, however, my book *Australian Herbal Crafts* contains a comprehensive cross-referenced list which readers will find of interest and use in making tussie-mussies with special meanings.

SO EASY TO MAKE

Tussie-mussies are easy to make. All

you need is string or thread, scissors, a paper doily (optional), a small piece of alfoil and of course a range of flowers and herbs chosen for their meaning.

• First gather plant material, in early morning is best, and give it a long drink

• Strip off any unnecessary foliage below the string line as you proceed with assembling the tussie-mussie.

Continue adding herbs and flowers and securing with string until the tussie-mussie is large enough – small com-

pact tussie-mussies measuring about 12-15 centimetres across are delightful but many people prefer larger ones.

• Large-leaved herbs such as peppermint, geraniums, sweet cicely, tansy, lamb's tongue etc in the final round will form a soft 'frame' for the posy

• Tie off the string using the length left over at the beginning. Trim stems then leave the tussie-mussie in a glass of water to revive for half an hour or more if possible.

• To finish the tussie-mussie wrap the stems in a small piece of alfoil and insert the posy through a small paper or starched lace doily. (This is unnec-

essary if the posy is framed with large leaved herbs.)

A tussie-mussie is a perfect gift for all occasions: birthdays, births, christenings, illnesses, weddings, engagements, Mother's Day.

When presenting a tussie-mussie, enclose a card on which the message in the herbs and flowers is explained to make the gift more meaningful.

Other books written by Kim Fletcher are: *Herbs in Australian Gardens*, *A Modern Australian Herbal*, *Essential Oils* and *Australian Herb Industry Resource Guide*. Write to: PO Box 203, Launceston 7250 for details.



of water before proceeding.

• Use a single flower such as a rose for the centre. Place a few sprigs of small-leaved herbs evenly around this flower so that the top side of the foliage is uppermost. Start winding a long piece of string or thread tightly under this bunch leaving about 12 centimetres loose for tying off later on.

• Next add some more herbs as before, varying shape, size and colour as you choose to make a pleasing design. Keep larger leaved herbs for the outer rounds where they will provide a backdrop for the daintier herbs in the centre.

THE LANGUAGE OF FLOWERS

A red tulip is a declaration of love.

A yellow tulip is hopeless love.

A garden daisy sentimentally expresses shared feelings.

A red chrysanthemum says, 'I love you'.

Cream honeysuckle conveys bonds of love.

A flowering fern tells of complete fascination.

A snowdrop expresses hopes of love.

A pink carnation should be worn by a woman in love.

Yellow acacia is the flower of secret love.

Forget-me-not assures it is true love.

A PRESENT FOR A CHILD

by Rosalind Gross, Ashburton, Vic.

Giving a gift often brings as much joy as receiving one and choosing a present for a child is an absorbing activity. Opinion comes down emphatically that a toy should have potential for imaginative play so that a child's development is fostered, rather than being a decorative but eventually sterile and frustrating object.

One of the most successful presents I gave to a small child was a salt-dough modelling outfit that I put together myself. It was not an expensive gift. I found a lightweight plastic rolling pin (the kind that is meant to be filled with ice water so that the cook can make lighter pastry) in a chainstore, some different sized, star shaped biscuit cutters in a cookware store and, best of all, the recipe for the dough in a glossy magazine.

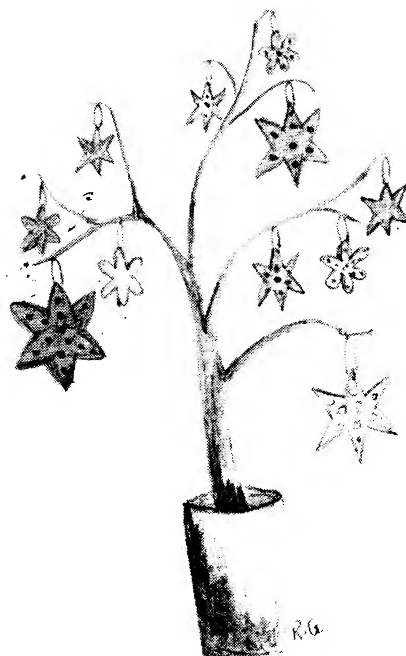
As the child for whom the gift was intended was coming to visit me I made up some salt-modelling dough and we spent a happy hour or so rolling and cutting the stars. Decoration was easy, we used small cake forks and a plastic

drinking straw that made holes right through the dough, making hanging up the stars later on very easy.

What to do with the stars after baking? Decorating a Christmas tree was the obvious answer but it wasn't Christmas so we stood a small twiggy branch from the garden in a tall vase and hung the stars on it to make a 'star tree'.

Salt-dough modelling has potential for older children, too, and a visit to a craft market will sometimes show the kind of things that can ultimately be made.

A child psychiatrist once said in a talk I heard that children's self-esteem is fostered if we take time to actually do their activities with them. They really know then that we think what they do is worthwhile. Perhaps the giving of our time and interest is the greatest gift of all.



TO MAKE SALT-DOUGH

This quantity is sufficient for one or two children to use.

Mix eight heaped tablespoons of plain white flour with four tablespoons

of salt. Add one tablespoon of vegetable oil and eight tablespoons of water. Knead till firm. For cutting out shapes roll out approximately one centimetre thick. Bake about two hours at 145°C or until hard.

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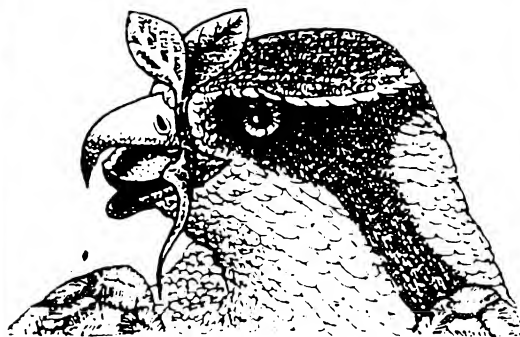
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FOOD FOR GOOD HEALTH

by Gisela McIntyre, Bundaberg, Qld.

A reader describes the importance of taking personal responsibility for diet and lifestyle adjustments.

At the age of fifty my husband had a heart attack, caused by a blocked artery at the back of his heart, blocked by cholesterol. We were unaware of his condition. As it was in the early seventies not too many knew about cholesterol and its complications, only the ones it really concerned.

We were made aware of the need for a change in diet after my husband recovered. These days it is everyday knowledge. He was advised to: remove fat from meats, use polyunsaturated oils and margarines, obtain fibre from vegetables and breads, reduce intake of salt, eat no extra sugar or egg yolks, whites only, no smoking, have a very moderate intake of alcohol.

Smoking and alcohol were no problem. Sugar was, so we switched to sweetener. To increase our consumption of salad and other vegetables was easy. Switching to wholemeal, rye, or full grain bread was hard, as my husband liked his white bread and cakes (mostly wheat and sugar). We gradually became used to it. The change from butter to polyunsaturated margarine was quick. The swap from full cream milk to skim milk was done overnight. The skim milk in tea in fact tasted better to us. We sinned at times, using tinned skim milk, a bit stronger than that made from the skim milk powder.

The meat! The meat! That was the hardest! The tails of the lamb chops had been my husband's delight. He actually indulged in eating mine, as I usually cut them off. I might add here, my cholesterol was always normal. All meat fat had to be trimmed. Roasts were baked on a grill in the oven. Minced meat was cooked, cooled, and the fat, which settled on the top, was scooped off.

No more rich milk shakes, which my husband used to enjoy with the kids. Those were all forbidden.

There we were, the kids still at school, ten more years to put in at work, settling back into a normal life after all the adjustments were made and the medication my husband had to take was accepted. Until the incident.

Our eucalyptus tree in the front yard had grown too high. Armed with a ladder and a saw, my husband tackled it. He reached high to cut a couple of branches, when he experienced a severe pain in his chest. He hollered out to me at the bottom of the ladder and dropped the saw onto the ground. He managed to come down, get into the house and lie down. The doctor called and told him that climbing on ladders or cutting high branches were out for good.

On three other occasions he was rushed to hospital. Once to the Princess Alexandra in Brisbane, the other times to the Gold Coast and Tweed Heads Hospitals. Each time he recuperated in Intensive Care. The first time we could find no reason for the onset. The second time, walking against the cool wind on the beach brought it on. The third time, it was a cool breeze off the ocean on the open hilltop of Terranora on a late winter afternoon. It was either brought on



Careful attention to diet and lifestyle helped the McIntyres regain and maintain good health.

by diet, exhaustion or cold. Exhaustion we had to eliminate, the cool we had to avoid. Food we had to be stricter with. The exhausting things we eliminated by such measures as buying an electric lawnmower. The cool we avoided by having extended winter holidays in north Queensland. The food was once again the hardest.

We decided to go for the Pritikin diet. We went onto the Regression diet. The main rules coming down to: no meat (no chicken, no fish), no fat, no sugar, no coffee or tea. If you really had to have tea, then Madura. In the beginning we had a cup of coffee on a Sunday afternoon.

Sugar we had more or less already eliminated. Fats (polyunsaturated oils and margarines) were replaced by low-fat cottage cheeses and Pure and Simple. Skim milk was allowed in small quantities. No meat, so hard for any Australian.

We needed our protein, so I resorted to postwar German cooking: soups with beans, lentils and peas and plenty of fresh vegetables and potatoes, fresh herbs and spices. It wasn't a soup, it was a stew as my husband called it. Wholemeal bread without yeast, raised by its own power on the hot water system overnight and baked to perfection in a slow oven supplemented those meals. Crusty as it was, broken off and eaten with the soups.

Fruit. I nearly forgot fruit. The Regression diet only allowed one piece of fruit a day.

We stayed on the Regression diet for nearly eighteen months. My husband benefitted from it enormously and as I had joined him, I did as well. Now we are on the Maintenance Pritikin diet.

Oh, we can sin now! We are allowed 125 grams of chicken or fish a week, more fruit such as pawpaw for breakfast, tinned fruit in natural juices, and several other little concessions, which have made life a lot more pleasant.

My husband had to exercise so he chose walking. Starting with fifteen minutes for a few days, he took it grad-

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ually up to half an hour a day. He managed that well.

The angina pain has come up in the last six years once or twice. Of course he is on medication for angina and cholesterol. As a private measure he takes a vitamin E and an antioxidant tablet nearly every day. He is doing fine, working nearly every day in the garden on our two-acre property. The mornings have to come on slowly, the system has to warm up first. Early digging is a no-no!

There are always new wonder cures or fads coming up claiming to reduce cholesterol. The late Lady Cilento introduced into Australia, from New Zealand, the chelation treatment. Fed into the bloodstream intravenously, it reduces all foreign matters, which gives the blood a better flow through the arteries. With twenty treatments my husband felt much improved. After that he walked on the beach even against the wind, not too cool though. We had learnt our lesson there.

Vitamin E was popular and now and then gets a mention. There was the oat bran fad. Did it help? Nevertheless, one takes the bran!

Here we are, having benefitted from a careful diet. We sin sometimes. After having done so, the thrill is not all that wonderful. It was a craving; was it worth it?

RECIPES

Cucumber Salad

Take one continental cucumber, peel it, slice with grater into thin slices. Let stand. Prepare a dressing of half a cup of plain or fruit yoghurt with fresh finely chopped dill, mix well. Press liquid out of cucumbers and add to dressing. Refrigerate, garnish with parsley.

Optionally, add a finely sliced purple salad onion, replace dill with parsley or garlic chives.

Wholemeal Bread

Use fresh 100 percent wholemeal flour. Soak four cups of flour with four cups of water for 24 hours or more in a plastic container covered with a tea towel in a warm spot, preferably on a hot water system, overnight. Add six more cups of flour, make a dough. Knead for ten minutes. Spray two bread tins lightly, divide mixture into half and place into tins. Leave in a warm place (the hot water system again) for another twelve hours. Bake at 180°C for 40-50 minutes.

Date Spread

375 g dates

375 ml unsweetened apple juice concentrate

Soak dates overnight or for several hours in apple juice. Heat on stove and let it boil gently, stirring constantly until dates become mushy. If too thick, add more concentrate. Let it cool. It will fill nearly two 500 gram jars.

Spinach/Fetta Cheese Light Snack

packet frozen spinach, 250 g (not the creamed kind)
small onion
250 g fetta cheese

Defrost spinach in microwave or beforehand. Spray a saucepan. Fry small chopped onion on low heat. Add spinach, stir. Cube fetta cheese, add to spinach. When dissolved, season with nutmeg. Serve on toast. Enough for two.

Lentil Soup

1 cup lentils
carrots
celery
onion
potatoes
turmeric
coriander
cummin
parsley
garam masala (optional)

To one cup of lentils add enough boiling water to cover them well. Let stand for one hour. Prepare a basic vegetable soup with plenty of sliced carrots, diced celery, a whole peeled onion (which is removed later) bring to the boil and cook slowly. Peel several potatoes, cut into small cubes, steam or boil separately. Dispose of water, add potatoes to vegetables. Bring lentils to boil for one hour, until just tender. Don't overcook. Remove onion, add lentils, turmeric, coriander, cummin. If you like it strong use garam masala and let it draw, add finely chopped parsley. Optional: add pitted prunes.

ALOE ACRES

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In the last five years, a small group of Australians has been working to put native foods into the marketplace so they can be recognised as a vital part of Australian culture. Through dedication, persistence and customer enthusiasm, these foods have moved in popularity from being a novelty to becoming a regular part of the Australian diet. As the industry grows, supply must be shifted from gathering (which puts pressure on native resources) to farming. Long time *Grass Roots* readers, Dianne and Roger Fielke, have become involved in Australia's first bush foods nursery, set up to supply native plant material to growers. Now *Grass Roots* readers have the opportunity to grow bush foods, either in the home orchard experimentally or commercially on the farm.

BUSH TUCKER

An opportunity for the small farmer

by David Miller, Shepparton, Vic.

A few years ago, Roger and Diane Fielke were farming organically in northern Victoria. At the same time, Roger's brother, Andrew, was demonstrating cooking with Australian foods in hotels in Asia and Europe as part of an export drive to promote the use of Australian produce. What changed this happy state were questions by the European chefs about Australian foods and cooking methods. After telling the chefs that the foods and methods were the same as in Europe, Andrew felt quite inept, and on his return to Australia spent some months

tracking down sources of indigenous foods and experimenting with them to produce a truly Australian cuisine.

The success of his experiments led Andrew to open his own restaurant in Adelaide, the Red Ochre Grill. Here he produces a menu which is uniquely and truly Australian, but the development did not end there. The diners' enthusiastic reception prompted Andrew to create products based on the use of bush foods. These are now distributed throughout Australia and include pastas, chutneys, sauces and other products.

With all the demand, supply became a problem, so a company, Australian Native Produce Industries, was formed to produce as many of the ingredients as possible, and this is where Diane and Roger became involved. Their responsibility was to run the farm, but they found that the farm could not be developed without a source of plant material. So with the help of Andrew Beale, a revegetation consultant, they started a native foods plant nursery to locate, test and develop the plant material. In the meantime, the popularity of bush foods



Rows of a variety of bush tucker plants under propagation in the large igloo. Watering is by means of overhead sprinklers.

was increasing and people wanted to grow the fruits themselves. Most wanted plant material to establish different species on a trial basis in their home orchards to see how well they produced and to evaluate their potential for further investment.

It soon became obvious that the plant material had to be developed as quickly as possible. They were already aware of the demise of other uniquely Australian produce. The macadamia nut had been commercialised and patented in America, so now Australians had to buy all their material from that source and the Americans took the royalties. Emu farming is already an established business in the USA. The Israelis have taken an Australian native bluebush, *Mariena sedifolia*, and turned it into a million dollar cut flower export industry. And the kangaroo paw, the mud crab and the barramundi have already been taken offshore for development. So the Fielkes realised they had to work hard and fast to keep the bush food industry in Australia.

While Andrew was busy identifying the species that were valuable gastronomically, Diane and Roger were locating them in the field. They collected plants to take back to the nursery for propagation, and observed which were the best producers of quality and quantity for further collection of plant material once propagation had been successful. This process has taken many trips over some years, and when the Fielkes find what they think is a worthwhile selection they register it with PBR.

Roger is enthusiastic about bush foods. He can see an untapped potential, especially in the export field, but he quickly advises caution. While bush foods are becoming increasingly popular, those interested should read as much as possible, then get a few plants and run a limited trial to see how well they grow and produce under local conditions. There has been very little research into the growth and harvesting of bush food species, so caution is required. When a particular species shows it will produce satisfactorily in local conditions, a larger scale planting can be undertaken.

The Native Food Plants Nursery is happy to help anyone interested in developing bush food, and may be interested in buying the produce at a later date. They have an information kit and plant list available for \$3.00 which includes postage. This contains a list of species available from the nursery, the



Plants hardening off outside the igloo, ready for sale to prospective growers. There has been little research into this area so a trial planting of a small plot is recommended initially.

potential of each species, the best methods of growth and production, possible yield and approximate income on a per hectare basis. (*Grass Roots* readers can write to the nursery at PO Box 163, Paringa, SA 5340.)

One of the earliest visitors to the nursery was James Vandeppeer. He attended a course on farm diversification and, at the end of the weekend, the participants decided they should stay together and work as a group to develop some of the programmes suggested. James was not attracted to the more expensive options presented, but liked the Australian native food production because it neatly dovetailed with the present farming operation. They already had the equipment for planting, and all that was required was the purchase of the plants. He also likes the project because it is quite different, some of the species can be used in shelter belts, and it gets him into a niche market. James can sell all he produces to Australian Native Produce Industries which will do the marketing and distribution, which

he considers a bonus.

When deciding which species to plant, James took the practical route and went down to Red Ochre and tasted the products he thought had potential, selecting the ones he liked. He finally decided to plant *Kunzea pomifera* (muntries) and *Acacia retinodes* and is pleased with the progress of both at this stage. He is looking forward to the first harvest at Christmas this year.

NATIVE CROPS SUITABLE FOR FARMING

Muntries

Kunzea pomifera

An evergreen, prostrate, creeping shrub with fluffy, white flowers in late spring. Green berries become tinged with pink or purple when ripe. This attractive, vigorous species grows on light, well-drained soils in the 500-800mm rainfall area.

The sweet, apple-flavoured berries are used fresh in desserts or cooked in pies, chutneys, jams or sauces. Muntries has potential as a fresh berry fruit.

Sweet Appleberry

Billardiera cymosa

This nonvigorous spreading shrub may be supported and turned into a twining climber. It has narrow, green foliage, blue or white star-shaped flowers appearing in spring-summer, and reddish, finger-like berries in summer-autumn. It grows in lighter, well-drained soils in the 300-800mm rainfall area.

The fruit is a tasty dessert berry with an apple and aniseed aftertaste.

Edible Seed Crops

Acacia hakeoides, *A. ligulata*, *A. notabilis*, *A. papyrocarpa*, *A. pycnantha*, *A. retinodes*, *A. saligna*, *A. victoriae*, and *Brachychiton populneus* (kurrajong)

These seed crops are traditional Aboriginal foods. They are high in protein and carbohydrate and can be made into flour by roasting and milling. There is a growing market for the flour which can be made into damper, breads, cakes, pastries, desserts and beverages.

Native Orange

Capparis mitchellii

A small rounded tree or bushy shrub, the native orange grows to eight metres with a dense crown in hot, low rainfall areas. It has dark green foliage and large white flowers which appear at any time of the year and open for only one day, then wither. The fleshy fruit is up to 50mm in diameter and usually ripens in mid to late summer.

The fruit is used in desserts, gelati, ice cream and cordials.

Native Rosella

Hibiscus heterophyllus

This evergreen shrub or tree will grow to six metres, producing large pink hibiscus flowers in summer and autumn. It grows quickly in high rainfall areas on a broad range of soil types.

The leaves and flowers are edible, the flowers being used as a 'tropical' garnish and the leaves as a salad or cooked vegetable.

Native Pear

Leichhardtia australis

The native pear is an evergreen, twining, nonvigorous woody climber with olive-green leaves and sweet, edible, cream flowers which appear in spring and summer. It occurs in low rainfall areas on a range of soil types, and can be grown supported on a trellis or fence.

The flower clusters may be eaten whole and are brimming with sweet, tasty nectar. The immature fruits have a

sweet, pea flavour and are eaten fresh in a salad, lightly steamed as a vegetable or pickled.

Illawarra Plum

Podocarpus elatus

The Illawarra plum is an upright, conical, evergreen tree growing to 10 metres carrying male and female flowers on separate trees. Blue-black, plum-like fruits are borne on the female trees in autumn and winter. It grows in the 800-1500mm rainfall area on a range of soil types.

The fruit has a subtle plum/pine flavour and can be used in sauces, chutneys, jams, pies and desserts.

Sweet Quandong

Santalum acuminatum

The quandong is an evergreen, rounded shrub or small tree growing to six metres. Small, cream coloured flowers appear in spring during and after fruit ripening. This species occurs in 150-600mm rainfall areas on lighter soils.

The ripe fruit may be eaten fresh but is generally reconstituted from the dried product. It enjoys a high degree of consumer acceptance as a savoury or dessert with tremendous versatility.

Riberry

Syzygium luehmanii

The riberry is an evergreen, pyramidal tree of 10 metres which flowers in spring and summer producing red, pear-shaped fruit. It occurs in subtropical and tropical NSW and Queensland where rainfall exceeds 600mm, but is grown in cultivation in Melbourne, Sydney and Brisbane.

The fruit ripens in late summer and has a strong flavour of cloves and spice. It is used in jams, relishes, glazes, sorbets, ice cream, etc.

Lemon Myrtle

Backhausia citriodora

The lemon myrtle is an attractive, medium-sized tree which is hardy when established, but may need frost protection when young. It flowers in summer and the leaves have a strong lemon scent.

The leaves are used to flavour seafood, salads, sauces, beverages, desserts and ice cream.

Bush Tomato

Solanum centrale

This small, evergreen, prickly shrub has pink to purple flowers for long periods of the year. It is extremely adaptable, fast growing and hardy, but probably not suited to high rainfall areas.

Bush tomato fruits ripen at any time of the year and can be eaten fresh or dried, but they must be properly ripened before use. Ripe fruit may be sun dried on or off the bush. Chopped or powdered, the fruit has an intense, earthy flavour used to spice soups, marinades, stews and casseroles.

Native Pepper

Tasmannia lanceolata

Native pepper is an evergreen, dense, rounded shrub which grows to five metres with glossy, dark green leaves, cream coloured flowers in spring, and black berries in summer. It will grow quickly in a range of soils, but may need irrigation in low rainfall areas.

The leaves and fruit contain a chilli/pepper factor with a delicious flavour which can be used in a wide variety of savoury dishes and preserves.

Warrigal Spinach

Tetragonia tetragonoides

Warrigal spinach is a rambling, evergreen perennial ground cover. It is hardy and vigorous, and grows in a wide variety of soil types and rainfall conditions. Under cultivation, it must be grown quickly to avoid a bitter taste developing in the leaves.

Warrigal spinach was first popular in England and America before the turn of the century, now its large angular leaves are used in salads, as a hot vegetable or as a flavouring in quiches, stuffing or other hot dishes.

Paperbark

Melaleuca quinquinervia or *M. preissiana*

With plenty of moisture, these species grow to 10 metres in cultivation. They are tolerant of a broad range of soil types and may be frost sensitive when young. They produce a corky bark in papery layers, which is used for steaming or roasting fish, poultry, meat or vegetables.

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Contact

Diane and Roger Fielke,
Native Food Plants Nursery,
PO Box 163, Paringa, SA 5340.
Ph: 085-951 611.

Plants in 50mm tubes are approximately \$2.00.

TREES FOR FARM DAMS

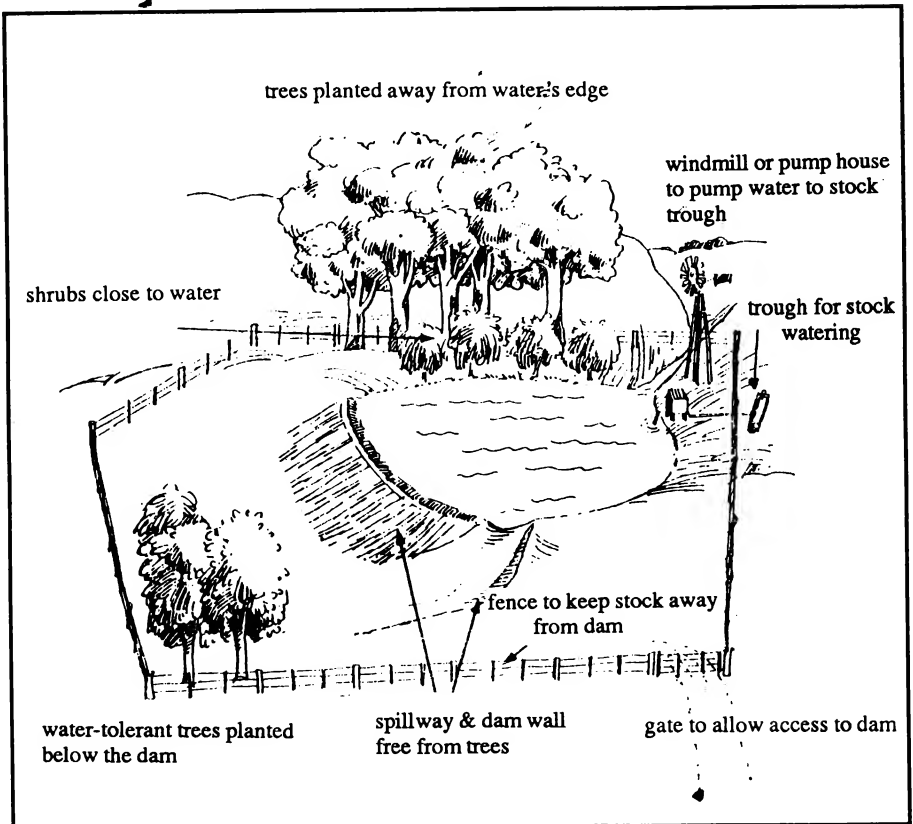
by Peter Stace, Apiary Officer, Wollongbar.

Evaporation from water surfaces of dams, and other forms of farm water storage, can be diminished by planting trees in strategically selected locations on their perimeters. The trees have the effect of reducing the speed of prevailing winds across such water surfaces, slowing the rate at which evaporation takes place.

Dams and other farm water storage facilities are expensive yet essential assets. Their main task is to supply water in dry times; but dry times are associated with dry winds, usually from the north-west. Evaporation rates of five to eight millimetres per day are regularly experienced under such conditions.

A row of tall growing trees, planted 10 – 12 metres from the water's edge, either on the north-western or south-western sides of the targeted water supply will reduce the evaporative effect of these dry winds by a significant amount, down to one or two millimetres per day.

Some ideal tree species for protection of farm water sources include forest red gum, red bloodwood and bottlebrushes. It is important to remember not to plant trees on dam walls or any spillway.



A suggested strategy to reduce evaporation and maximise water use in a farm dam.

Further information on planning and constructing dams, including tree planting around the edges, can be found in Nick Romanowski's articles in GR 83:55-6 and GR 84:65-6.

Reprinted from *Bee Briefs*, a publication of NSW Agriculture. For enquiries contact: PO Box 547, Tamworth 2340.

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ARTIFICIAL BROODING

by Megg Miller, Euroa, Vic.

'We must be familiar with the needs of baby chicks or ducklings . . . '

It is not uncommon for GR people to find themselves hand rearing chicks or ducklings, but for first timers this can be a daunting experience. There are many situations which lead to the need for surrogate brooding. Children may arrive home with a ball of fluff in a shoe box, or a broody hen may abandon her half-hatched eggs or weaker progeny. To provide adequate care we must be familiar with the needs of baby chicks or ducklings and how these can be met quickly and inexpensively.

The young of all our domestic poultry species emerge from hatching with eyes open and a body covering of down, they are capable of mobility within a few hours and they follow their parent(s) around either looking for food (ducklings, goslings), or being introduced to it (chicks, poults, keets). Thus, to survive, they need food and water and one additional requirement – warmth. Because they are covered with soft down (and not feathers like their parents) they need assistance to keep warm. When brooded or cared for naturally the mother will supply this and can be observed stopping and collecting her young under fluffed-out plumage regularly over a day. Artificial brooding is the term given to raising young birds independently of a parent and the poultry keeper is responsible for providing a source of heat as well as feed and water.

Artificial brooding involves rearing numbers of hatchlings in a safe, warm confined area until they are old enough and sufficiently feathered to survive outdoors. This usually takes about four to six weeks for chicks during the warmer months, perhaps a little longer in winter and early spring. Ducklings only take two to three weeks, with an additional couple of weeks during colder months. After brooding, the young birds are transferred to a protected shed or coop for a rearing or hardening-up period, and then they may be released or relocated for free range. Their new sleeping quarters should be snug, free from draughts and have thick warm bedding like rice hulls or wood shavings. A perch should be included for chickens so they can gradually learn to roost.

BROODING

Poultry keepers use an amazing array of containers or methods for brooding hatchlings and what you use will be determined by the numbers involved. Small numbers could be brooded in a cardboard box or tea chest in the house, but the corner of a shed or garage would be necessary for larger numbers. Don't forget that the hatchlings will be significantly larger and very active by the time they are off heat.

Small Numbers

For the first week a small box will suffice as the babes will be finding their feet. Box sides should be at least 25 centimetres high, to keep chicks and the heat in. Place thick newspaper on the bottom for absorbency. A cheap bedside reading lamp will be fine as a heat source, the globe being bent over into the box to about 15 centimetres above the newspaper. Site this so one end is warm but the other has a lower temperature. This enables hatchlings to escape if it is too hot and provides a place for

the water to stay cool. Remember that the ambient temperature is higher by day so the littlies need less warmth then. This may be achieved by raising the light globe a few centimetres and lowering it again at night, or by containing maximum heat in the evening by covering over two-thirds of the box top with cardboard or a cloth.

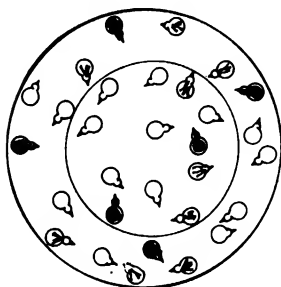
Water can be provided in a sardine tin or shallow saucer, although small containers such as these require regular topping up. Hatchlings are usually unsteady so it is essential to eliminate the risk of drowning. Budgie seed and finely chopped up boiled egg are usually fed for the first day or so. Starter crumble is a balanced ration if you can obtain it in small quantities, and only needs supporting with finely chopped greens. Crushed mixed grains are a suitable substitute. Sprinkle the feed on the newspaper to start chicks off eating, but after a few days it should be placed in a container to avoid wastage. When the newspaper is badly soiled remove the top sheets and replace with clean paper.



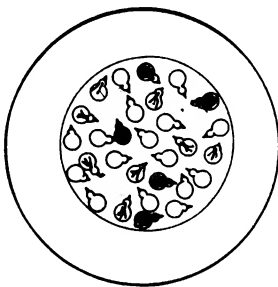
The infrared lamp placed to one end of the brooding box allows chicks to move away if they become too hot. Keep water away from the heat source and a thick layer of newspaper on the floor for absorbency.

Chicken Behaviour in the Brooder

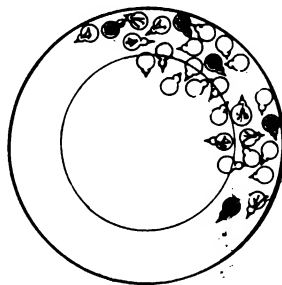
You will know from the activity and vocal sounds whether the brooder is being run at the correct temperature. Note the round shape of the brooder surround, this is desirable when brooding large batches as it eliminates the risk of chicks piling up in corners and suffocating. This is not usually a problem when small numbers are involved.



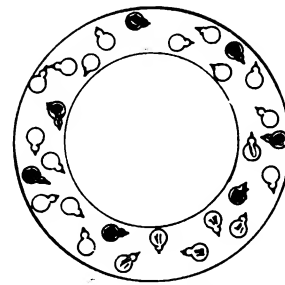
Correct temperature – chicks evenly dispersed around the brooder.



Too cold – chicks crowding in under heat light and complaining loudly.



Cool breeze or draught – chicks congregating on one side.



Too hot – chicks forced back to the outer edge.

Dry litter like rice hulls or sawdust is recommended to absorb the messy droppings, particularly in the case of ducklings. A larger box may be necessary during the brooding process, as too may a wire covering for the top if chicks show an inclination to flight. The light globe should be lifted gradually so the brooding environment becomes cooler. This encourages the growth of feathers and acclimatises them to the ambient temperature, ready for relocation outside.

Larger Numbers

Choose a site that is free of draughts and predator proof. A corner of a work shed or garage is ideal. Cover the floor with a piece of plastic then top up generously with newspaper. You will require some sort of brooder surround to keep the hatchlings in and the draughts out, and this could be a length of corrugated cardboard, masonite or even flat iron. Cut surrounds about 40 centimetres high. Avoid overcrowding and remember that chicks will need more space as they grow. From one to four weeks of age allow a square metre of floor space for 20 birds; five to eight weeks, a square metre for 10 birds. Ceramic or infrared globes are better sources of warmth than light globes and will last several years if stored away when not in use. Hang the heat source from a hook in the ceiling, bearing in mind that you will be lifting the globe a few centimetres every couple of days. At the beginning it should be low enough to provide a brooder temperature of 35°C about 50 millimetres above the newspaper. The electricity should be turned on 24 hours before the chicks are to be settled in and the brooding area warmed. Set up waterers and have feeders ready too.

A commercially made waterer saves a lot of time and problems and is well

worth the small outlay. Grain or crumbs are best sprinkled on the paper for the first day or so but the sooner feeders are in place the sooner birds start using them. Once feeders are in use, sawdust or rice hulls can safely be introduced as litter to absorb moisture in the droppings. Top up every few days.

Ducklings are messy drinkers and throw water around when washing, causing wet, smelly areas. These should be dug out and replaced with dry litter. It may be worth elevating the waterer on a wire mesh platform. Chicks scratch litter into their water and one way to minimise this is to lift the container up onto a couple of bricks.

SPECIAL CONSIDERATIONS

If you start off with the heat globe quite low you must remember to raise it every couple of days or the chicks or ducklings will burn their heads. It is surprising how quickly they grow.

Never put chicks in on dirty litter. If you're brooding in a box and obtain one or two more chicks several days later remove the dirty paper and droppings before introducing the chicks. Alternatively, you cover the soiled material with fresh layers of paper. This also applies to larger scale breeding. Coccidiosis can develop during artificial brooding and measures like removing wet areas and topping up regularly with new litter will minimise its spread, as will avoiding overcrowding. Chicks that have contracted it will huddle up and chirp, and void loose droppings with blood in them. Conventional medication can be obtained from your vet, but in the meantime slippery elm powder will provide relief. Cleanliness will minimise outbreaks of this disease, as will a little whey powder sprinkled onto the crumbs every couple of days.

It is best not to mix different ages of chicks together as they can bully and feather peck each other.

Boredom may be alleviated by hanging bunches of silver beet from the sides of the surround or providing containers of finely chopped grass.

Small numbers of chicks can be taken out and placed on the lawn during the day in a safe coop and returned to their warm box at night.

Watch out for overheating. What seems appropriate at 9 am may be too hot at 2 pm and if you are not around to adjust the heat and there is insufficient space for the birds to retreat from it they will overheat and die. Better to lift the globe higher in the morning than be sorry, or even add an extra section in the surround to provide a cool perimeter.

Finally, when the hard work is done allow time in your schedule for watching these amusing, entertaining and outrageous critters. You will be amazed at just how long you spend observing them and laughing at their antics. I bet it's not the children who bring the fluffy balls back from the agricultural show next time!



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FRUIT TREES FOR SMALL AREAS

by Neil Barraclough, Briagolong, Vic.

While a lot has been written about finding a patch in the country with plenty of room for all sort of things, it has to be realised that many GR readers are living on a small block. This shouldn't stop people having a vegie garden and some fruit trees. However people intending to have an orchard on a small block should give more thought to getting the maximum use from limited space. As well, this article might be of use to people in the country who are caging their orchard to protect it against birds or possums.

ROOTSTOCK

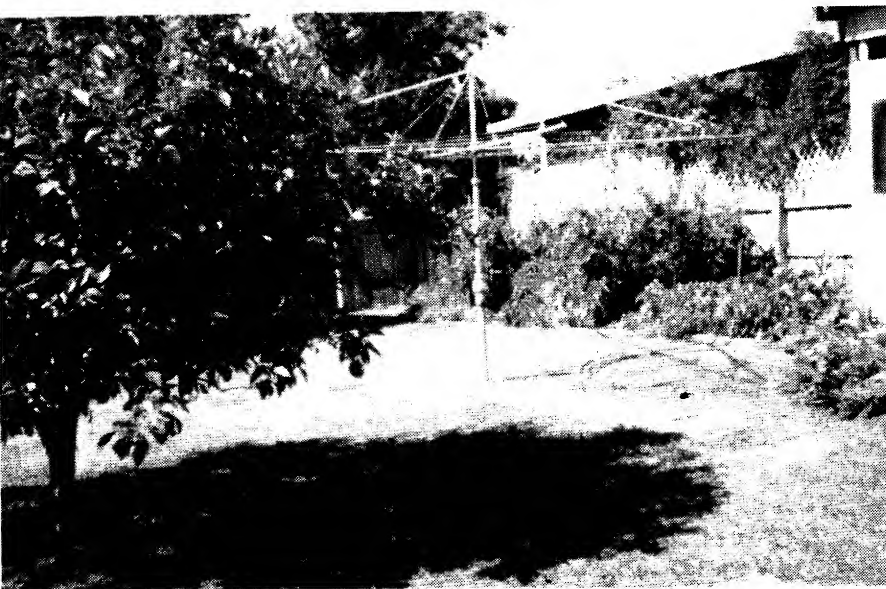
A few tips applying to south-eastern Australian conditions are worth considering. First, think of a fruit tree as two parts, one part is the rootstock and the other part is the main part of the fruit tree above the graft. We give a lot of thought to the top half, which we simply think of as the variety (such as a Granny Smith or Jonathon apple) but often little thought to selection of the rootstock. The choice of rootstock for many types of fruit tree is the greatest influence on the eventual size of the fully grown tree.

Some Examples

Apples grafted on to a rootstock called 'M27' will grow to a size of about 1.25 metres to 2 metres when fully grown and apples grafted on to an 'M9' rootstock will grow to around 1.5 metres to 2.5 metres. It's only the tree that is smaller, the fruit are identical in size to the same variety grafted onto some of the rootstocks that produce larger trees.

The M9 and M27 rootstocks don't have good anchorage in the soil so may need staking. Some old fruit tree catalogues list apple varieties grafted onto a conventional apple rootstock with an intergraft of 'Paradise' (which is most likely the same as the M9 rootstock of today) and claim that this also produces dwarf trees. This means a rootstock of something like Northern Spy for light soils or M7 for heavy soils, with a graft of M9 on it and the variety we want grafted onto the M9. This gives a dwarf tree that doesn't need staking.

A number of pear varieties can be grafted onto quince rootstocks and this will produce a fully grown tree about one-quarter to one-fifth the size of a normal pear tree. Pear varieties that can-



Even a small suburban backyard can be very productive, especially if appropriate plants are chosen and existing structures used as trellises and espalier walls.

not be grafted directly onto quince can be grafted with an intergraft of a compatible pear variety such as Beurre Hardy or Vicar of Winkfield.

There are a number of dwarfing plum rootstocks mentioned in European and American literature, but the only one that I know of being used in Australia is called St Julien A. Plum trees grafted on this stock should be half to two-thirds normal size when fully grown.

Citrus are a great fruit for the home garden, being both attractive and productive. Oranges, lemons, mandarins and grapefruit can be grafted onto a number of different, but related, rootstocks, but if grafted onto Trifoliate orange rootstocks will only grow to about half the size that the same variety would on one of the other common rootstocks. However Trifoliate orange rootstocks don't handle sandy or heavy clay soils well.

Loquats are a great early fruit and many people with a small area might take fright at the thought of a very large fully grown loquat. Loquats grown from seed or grafted onto seedlings will grow to a very large sized tree, but if grafted onto a quince rootstock will only grow to about one-fifth to one-quarter the size. Also, loquats grafted onto quince rootstocks will start bearing in six to seven years while seedlings or loquats grafted onto seedlings may take up to 20 years to first fruit.

SPACE MAXIMISATION

Black, red or white currants, gooseberries, raspberries, Chilean guavas and Cape gooseberries are examples of small fruiting bushes that will all grow well in partial shade under your fruit trees and all produce delicious, nutritious fruit.

Grow vegies under the fruit trees. Most, if not all of the greens we grow, either for salad or cooking, handle partial shade well and many benefit from some summer protection such as the conditions under deciduous fruit trees. If you grow it for the leaf or stem then try it under your fruit trees in a no-dig system. The fruit trees will benefit greatly from any mulch. On the other hand you can also grow some of the dwarf nectarine and peaches amongst the rest of the vegie garden.

Use as much available space as possible. West, north or east facing walls can have cordons of stone fruit such as peaches, nectarines, plums or cherries or espaliers of apples or pears. The M27 and M9 apple rootstocks are the recommended rootstocks for cordons or espaliers, as are quince rootstocks for pears.

North facing walls and fences would suit passionfruit or grapes, and these will also grow well enough on a west or east facing wall or fence. If you have a narrow space that doesn't get much sun, such as the space between many suburban houses and their two metre

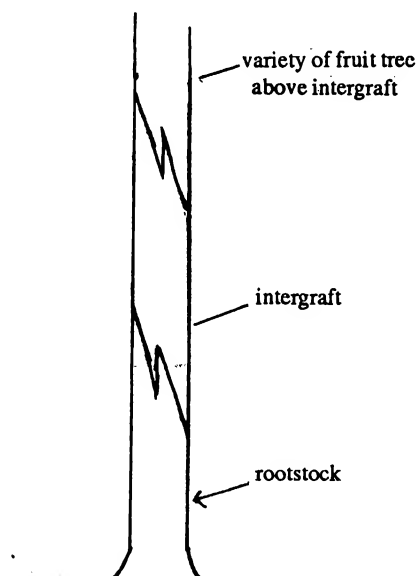
high side boundary fence, then this could suit kiwi fruit. Plant a male on one side (preferably the one that gets less sun) and one or more females on the other side. Kiwi fruit will grow and produce on a south wall. Nursery grown plants will be grafted onto seedlings and are very vigorous. Cutting-grown plants will produce much smaller vines that are easier to control. Perhaps you could plant a grafted female and cutting-grown male as I have done. If you are really pushed for space then perhaps a cutting-grown male and female. Grafting both sexes onto the same rootstock isn't a good idea as the male part will outgrow the female part.

Try less commonly grown types of small fruit trees such as feijoas (very hardy), strawberry guavas (respond well to mulching, like regular watering), and tamarillos (frost sensitive, like plenty of mulch and a sheltered partially shaded spot). These all require little or no pruning and produce tasty fruit in late autumn or winter. However, if you are short of space then be careful of experimenting. Many of the less common plants that the catalogues say 'produce attractive flowers followed by edible berries' simply aren't viable as part of a small self-sufficiency garden.

Multigraft

We often see the excess of a crop covering the ground under some fruit trees. While we should plan to have enough, plan not to have any waste. Many might be put off buying multigrafted trees from the experience of having one graft outgrow others on the one rootstock, leading to a virtually single variety tree.

Intergraft



Different varieties of apples, plum and pears grow at different rates. If we match up different varieties so that we have only those with similar growth habits on the same rootstock then it will reduce or eliminate the problems of one variety outgrowing others.

The Book of Apples, by Joan Morgan and Alison Richards (published by Edbury Press Limited, United Kingdom), lists in excess of a thousand apple varieties, many of which are available in Australia. It gives a value for vigour of one to three for each of the varieties and lists the varieties' growth habits as either upright, spreading or normal. If we were to only have varieties of the same vigour and growth habit on the one rootstock then it is likely that we would produce a multigrafted tree with few problems.

Apple varieties are available to the home gardener to give apples over most of the year. Proper selection may give you five compatible varieties on the one rootstock, giving apples over a five month period. More information is needed to confidently multigraft plums and pears; perhaps some GR readers might be able to help?

Plan your fruiting time. If you do a bit of research then you should be able to select varieties so that you have fruit available for most, if not all, the year.

PLANTING AND PREPARATION

It is virtually impossible to give broad guidelines on the preparation and planting of fruit trees, procedures should vary according to the soil conditions and the needs of the trees. Most of our common types of fruit trees do best in well drained, deep soil. If you have these conditions to start with then just dig a circle to spade depth of perhaps a metre in diameter and then dig in some compost if you have it to spare. Mound up the soil so that the base of the tree, planted in the centre, is higher than the original soil level. This allows you to mulch around the tree from time to time and not cover the base of the tree.

For bare-rooted deciduous trees, neatly cut off any damaged ends of the larger roots and make sure that the roots are angled down when planted. If the roots rise as they leave the trunk, rather than being angled down, it encourages suckering. Don't compact the soil too much and keep it watered, but not overwatered. It seems that the roots of deciduous trees grow all winter even though the tree is dormant. The earlier

the tree is transplanted after it loses its leaves in winter, the better.

Evergreen trees such as citrus are sold in pots, not bare-rooted like most deciduous fruit trees. Before buying the tree try to make sure that it is not root bound. Smaller trees, particularly if they are in large pots, will generally establish better than larger trees, so avoid large trees in small pots. Mound up the soil the same as for bare rooted trees and make sure that you thoroughly break up the root ball. Autumn planting is best for evergreen trees if they will survive the frosts of their first winter in your area. The soil is warmer in the autumn than it is in the spring and the warmer soil temperatures favour root growth.

In poorly drained soil it is more important to plant the tree higher by mounding, particularly with citrus which should be planted above the original level not below it. Sloping ground is not necessarily well drained and digging a hollow on sloping heavy clay soil to plant a tree may create a hole to hold the water.

Fertilising Established Trees

The ancient Chinese has a proverb which said of change: 'It's better too little than too much because you know you are going in the right direction'. This applies very well to both pruning and fertilising our trees.

With the smaller types of fruit mentioned in this article there is probably greater advantage in using organic fertiliser to establish the trees and far less need for pruning. Compost is the ideal fertiliser for both fruit trees and garden but it can be hard to get enough to do a reasonable size orchard. All fruit trees benefit from a regular light application of the seaweed products. I like the Seagold compost myself and believe it also helps reduce curly leaf in nectarines and peaches. Perhaps a light application of one of the seaweed products and mulching with lawn clippings might be all your orchard needs. Heavy applications of fertilisers, even compost, or light applications of manure may only promote excess growth and create the need for pruning.

Citrus however, will benefit from heavier applications of compost and mulch than the other common fruit trees; also they respond well to a regular light sprinkling of sheep, horse or cow manure or the pelletised chook manures. Citrus, being one of the first to show the effects of magnesium defi-

ciencies, may also benefit from the occasional light sprinkling of dolomite. Other fruit trees may also benefit from dolomite but the results won't be so obvious. Bitter pith in apples (brown skin blemishes with dry brown flesh underneath) is caused by a calcium deficiency and may disappear with the occasional light sprinkling of dolomite under the tree and mulching.

AVAILABILITY

I know of only one mail order retail nursery in Australia that specialises in fruit trees on dwarfed rootstocks. For a descriptive catalogue of a multitude of apple varieties (both modern and heritage) on dwarfing rootstocks, some pears on quince and some plums on St Julien A rootstocks, Send 3 x 45c stamps for catalogue to: Bob Magnus, Woodbridge, Tasmania 7162.

Quite often it's hard to find the fruit trees we want. Often fruit trees in your local nursery don't even list the rootstock. Those of us that can 'do our own thing' are greatly favoured. There are a number of groups (organic gardening or permaculture) that have formed an information sharing network to preserve heritage varieties of fruit trees and biodiversity. This is necessary if we are to be able to do such things as choose five different apples with the same growth characteristics mentioned above, that all fruit at different times, to graft on the one rootstock.

These groups could teach you to do your own grafting to multigraft your own trees, perhaps help you get access to some of the dwarfing rootstocks or help you become part of the effort to preserve our genetic heritage. To find out if there is a group near you or how the group that you are presently in could become involved, send an SAE to: Neil Barraclough, 'Garden of Eaten', Briagolong 3860.

References

Rodale's Organic Gardening, Sept 1985.
Plant Propagation: Principles and Practices, Hartman and Kester.

Acknowledgements

Jim Rochford and Bob Magnus.

JUG COVERS

by J Hayward, Bolgart, WA.



This delicate lacy jug cover is pretty as well as practical. Instructions below are for a tulle cover with a crocheted edge, but you could just as easily use a circle of lacy fabric.

In reply to the many people who have been asking about crocheted jug covers I have sent my pattern to share with GR readers. It is a simple pattern and will cover a one or two litre jug. Glass beads are used to weigh down the edge, as plastic is too light. I use eight evenly spaced beads, however this can easily be varied to suit the maker.

MATERIAL

- 1 ball Coats Chain Mercer crochet cotton No 20
- 1 steel crochet hook size 0.75
- 8 glass beads - variable
- a piece of tulle

ABBREVIATIONS

ch = chain
ss = slip stitch
dc = double crochet

METHOD

Cut a piece of tulle the size of a bread and butter plate. Thread the beads onto your cotton. (You just keep pushing them along

until you need them). Working through the tulle about 1 cm ($\frac{1}{2}$ in) from the edge, work about 212 dc around the entire edge of the circle. This will seal the edge. If you need more or less dc to fit around the edge, just remember the number must divide by 4 (eg 204, 208, 212, 216, 220). Ss into 1st dc.

1st Round

6 ch (1 dc into 4th dc, 5 ch) repeat to end. Ss into 1st ch of round.

2nd & 3rd Round

Ss to centre of next 5 ch loop. 6 ch (1 dc into next 5 ch loop, 5 ch) repeat to end. Ss into 1st ch of round.

4th Round

Ss to centre of next 5 ch loop. 6 ch, ** 1 dc into 3rd ch from hook, 3 ch (picot made), slip loop off hook, thread bead over picot, slip loop back onto hook. 1 dc into next 5 ch loop, (5 ch, 1 dc into 3rd ch from hook, 3 ch, 1 dc into next 5 ch loop) 5 times. 5 ch, repeat from ** to end. Ss into 1st ch of round. Fasten off.

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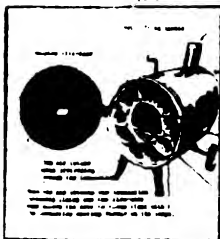
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How To Build A Portable High Voltage Power Plant And Welding Unit Using A Second-hand Car Or Truck Alternator

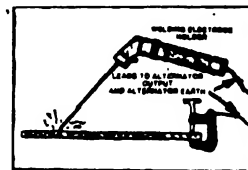
Research and Design by Jim Alloway

This special research manual shows how to convert old car alternators into a high voltage power plant and welding unit. This unit will run 240V lights, power tools, heating tools, universal brush type electric motors (will not operate induction motors).

You will be able to fast charge batteries, arc weld, fusion weld with carbon arc rods, solder, braze, cut steel and heat steel to near melting point for shaping and bending. Old 35 amp Bosch and Lucas alternators work very well. The modifications are easily done by anyone with ordinary tools. All the required parts are available from auto electricians or auto accessory shops and the total cost of parts is \$12.00 to \$15.00.

As a guideline to performance one 35 amp alternator will run 240v lights, drills, spot weld, heat, steel with twin carbon arc rods and do light welding. Two 35 amp alternators wired in parallel give an output of 70 amps which is adequate for most applications.

NOTE: You do not need a welder — this unique design enables welding leads to be connected directly to the output terminal of the alternator. The amps/voltage ratio is easily varied and controlled, enabling a low voltage, high amperage weld.



ing current output from a direct connection on to the alternator.

In addition to using your existing car alternator and pulley you will learn about various drive line options including a high speed ground level wind chute power turbine which you can build yourself and a water wheel with enough power and torque to twist and break a 25mm solid steel drive shaft. Included is a simple method to convert old car generators into 2-speed 12v electric motors and a special section on formulas and chemicals which you can use and make yourself to rejuvenate old batteries. **P37 — \$9.00**

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How to Make Alcohol Motor Fuel

This manual shows an easy method of making alcohol fuel (methanol) by fermenting plant and vegetable waste. Methanol can be added to petrol as a fuel extender, or used straight with a motor carburettor adjustment. Methanol is water soluble which means it can be mixed with water, and in fact will absorb water from petrol tanks. Methanol, water and petrol will all mix and dissolve into smooth motor fuel which is efficient and economical. Production is slow and not suitable for commercial ventures. However, it is a fascinating and rewarding project. **P23—\$6.00**

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PERFUMED DRAWER LINERS

by Betty Nulty, Milang SA.

Have you ever pondered the pleasant aroma you receive when around a particular person? Even in their absence the aroma can conjure up that person's face. The answer lies in the drawers, clothing drawers that is.

Here is an idea for perfumed drawer liners that I have found to work well, make wonderful gifts and cost little into the bargain. Firstly, you need to do a little scrounging for supplies.

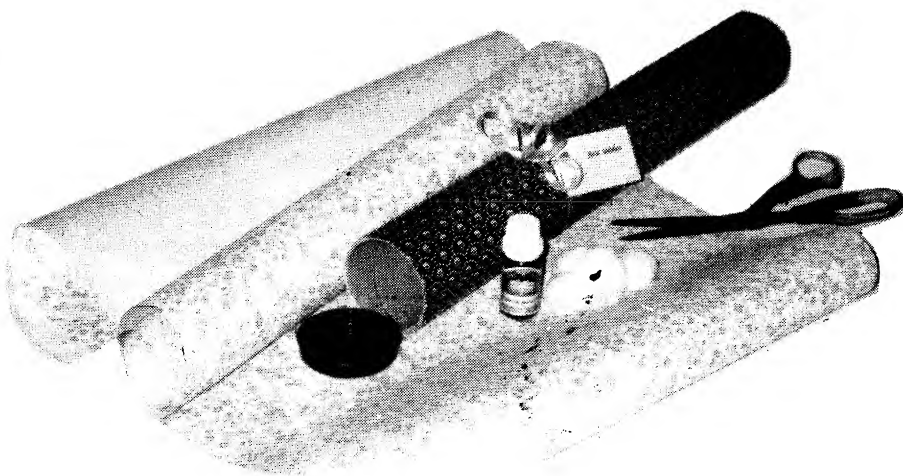
A visit to the local post office is required for a cylinder type post pack. If you are lucky you may be able to get one of these for nothing. They are used for inter-post office mail and then thrown away. Make sure they have the plastic caps for the ends as this will be important later on. If not, you may have to pay for what you want.

The next stop is a paint and paper store where offcuts of wallpaper can be purchased at little cost. Anything over 50 centimetres wide and a metre long is acceptable. If I have a choice I prefer the less shiny type of paper (it more readily accepts the perfume) and with a small design (it just looks better in the drawer). It doesn't matter if the roll is a little tatty around the edges as this can be trimmed away later.

On the way home, duck into a craft or health shop and purchase a bottle of essential oil in the perfume of your choice. Lavender, blackboy rose or magnolia are good; or perhaps sandalwood, bergmont or bayberry if the gift is intended for a male. The choice of perfume is never ending. This will probably be the most expensive item, but keep in mind very little is used.

The remainder of the items can be found around the home. They are: cotton buds, plastic wrap, curling ribbon, gift card, glue and scissors.

Now you are ready to start work. Take the wallpaper and examine it for any tears and unwanted marks. Trim away any torn edges and cut to size. The finished width of the paper will depend



on the length of the cylinder; 40-50 centimetres is normal. Two metres in length will cover four to six drawers depending on the size of the drawer. You should now have one piece of wall-paper 40-50 centimetres wide and one to two metres long.

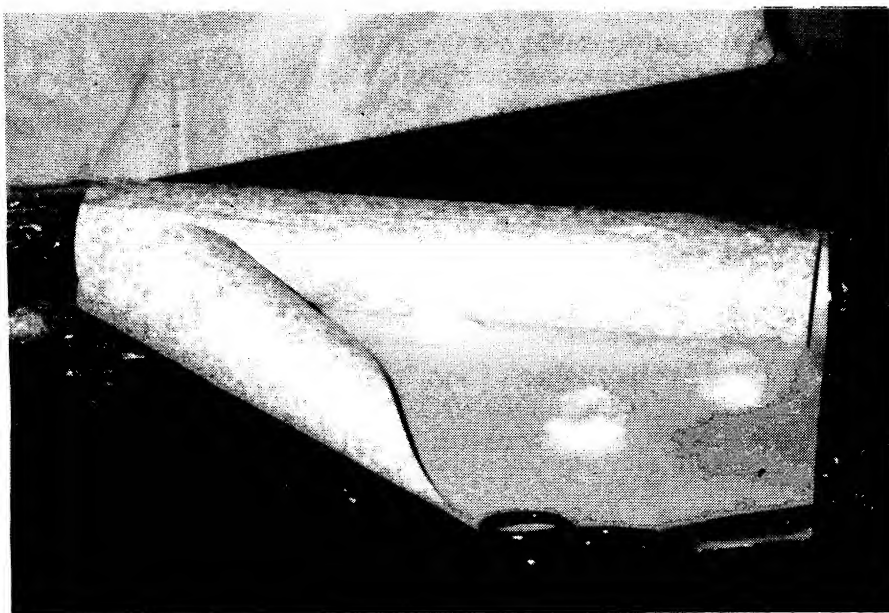
Place a few drops of essential oil on a cotton bud. As a guide use ten cotton buds to a metre of paper. Roll up the paper inserting the cotton buds at appropriate intervals. Now wrap the whole roll in several layers of plastic cling-wrap, securing firmly to keep in the perfume.

Place this in a cupboard or the bottom of the wardrobe and forget it for four to six weeks to allow the oil to thoroughly permeate through the paper.

Meanwhile, the cylinder is covered with wrapping paper or an offcut of the wall-paper. This is easily achieved by cutting the wrapping to the width required. Run a strip of glue along the full length of the cylinder. Roll the paper around the cylinder and secure the other end with more glue.

When you can wait no longer, open the roll. Remove the plastic and cotton buds and breathe in the beautiful perfume of your drawer liner.

Reroll the drawer liner, place in the decorated cylinder and replace caps. Add some curling ribbon and a gift card and you have an inexpensive and thoughtful gift any person would be proud to receive.



Use offcuts of pretty coloured wallpaper to make perfumed drawer liners. Cotton buds impregnated with essential oils are rolled up inside the wallpaper and left for several weeks.

CEILING CLOTHESLINE

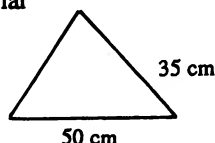
by Deb Cantrill & Quentin Jones, Heathfield, SA.

An idea for drying your clothes during those wet weeks, this simple device attaches to the ceiling and makes use of all that hot air that rises.

CONSTRUCTION

Materials

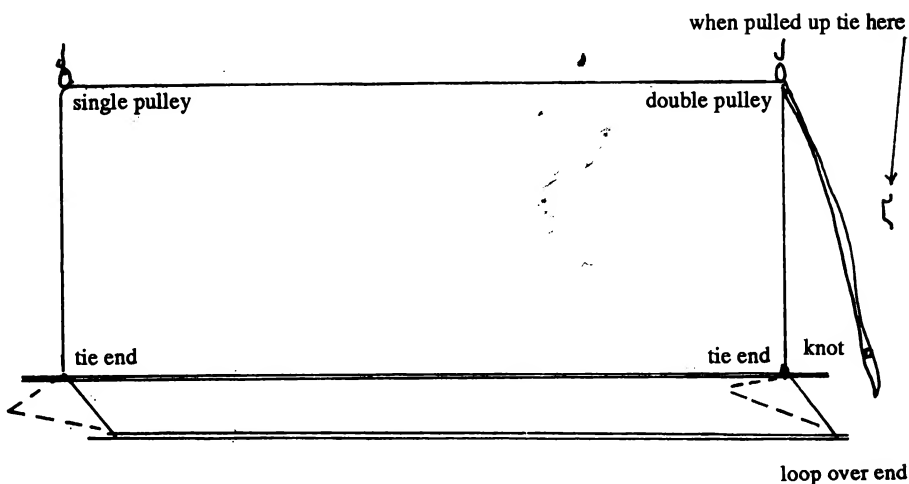
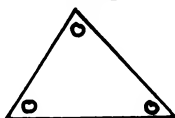
3 lengths of 1 cm dowel
2 triangular shaped pieces of plywood or similar



2 ceiling hooks
1 single pulley
1 double pulley
length of cord (4 x height of ceiling to your work height and 1 length of pole)
1 blind hook

Method

Drill three 1 cm holes in triangular pieces. Push dowel through about 10 cm, nail and glue.



Attach ceiling hooks to appropriate rafter support; attach pulleys. Tie cord to top dowel, thread through pulleys. Tie knot at loop end. This fits over end peg to allow an easy height to hang clothes from. When full, hoist up into ceiling space. Tie off on blind hook (attached to wall). Enjoy extra floor space. You can also use it to hang your herbs to dry on.

DRY CLEANING

Machine washing and tumble drying make clothes wear out more quickly. Try airing clothes overnight or brushing with a good natural bristle clothes brush, to extend the wearing time of garments before needing a wash.

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When we received these two widely differing views of country life within a few days of each other, we couldn't resist presenting them together to highlight the contrast. On reading them, people who are contemplating a move might be left wondering which is the most accurate perception. The reality is that both are accurate for certain times and situations. Yes, the rewards *are* plenty and there will be many occasions when feelings of peace, achievement and personal satisfaction are uppermost. Paradoxically, there will also be many times when 'everything goes wrong', it all seems just too hard, and you will be tempted to put out the 'for sale' sign and hightail it back to suburbia. Fortunately, many of the potential problems can be avoided or minimised by doing your homework thoroughly before making any binding decisions.



A CYNIC'S VIEWPOINT

by The Hermit of the Sand, Swansea, Tas.

Browsing through the pages of Feed-back, I could not help noticing the number of people who appear to have trouble separating dreaming from reality.

I live on a ten acre block, among other five to ten acre lots. There are ten 'for sale' signs within a mile stretch of road, some of these people had been here from four months to nine months only, before their signs went up.

I see people writing about self-sufficiency; sure I am self-sufficient in growing spuds, but how am I going to pay the dentist bill? I had a friend who wanted to sell me turkeys. When I suggested swapping with pink eyes, the subject wasn't raised again, but he would have taken the potatoes for free. You can't do any barter if you are an affable person,

like myself, so unless you are a professional farmer or wine maker, talking of self-sufficiency is a myth and we must be frank enough to be grateful for the existence of the Social Security Services.

The trouble with moving from cities to country areas is we are talking about two differing cultures. The high unemployment rate in the country means that if you are a worker, you will be looked upon as a competitor and won't be treated so kindly in the beginning.

TIPS FOR THE STICKS!

- Do not talk to neighbours unless they talk to you.
- You must acquire the art of D-R-A-W-L-I-N-G, so two or three people, depending on experience, can converse at

the same time without interrupting one another.

- Never tell a biblical joke, or any joke for that matter, unless you are a stutterer.
- Keep your recipes secret, and always eat in the dark.

There is nothing that I am growing here, and no self-sufficiency activity such as wine or bread making that I can't do on a quarter-acre block, with the added advantage of town water, and easy access to amenities.

To those contemplating the romantic notion of leaving the city for the paradise of living in the country: Due to the social loneliness your first phone bill will shock you. What would you know about the elements? I had to fence the whole block first, including chicken mesh, then

around the house, and that was still not enough. I had to put individual guards around all the trees. What about frost? I used to eat fresh beans six months a year, now I will be lucky if they last six weeks. I have to lock up the chicks for three months after hatching to stop the ravens

helping themselves, and the list goes on.

So unless you are prepared for the challenge, I suggest that you bring your sale sign with you, before coming to join me in the wonderful world of eccentricity. Sorry, but I can't help looking at so many sale signs, thinking how ill prepared most

of us are before we make our moves.

This is no kidding; I have just discovered the fence has been breached and the devil left me with five missing chooks and one Leghorn. I think I am going to display my own placard and join my neighbours. Any takers?

THE REWARDS ARE PLENTY

by Vicki McMahon, Pheasants Nest, NSW.

As I sit by the fire watching it crackle and glow I thought I would like to share the happiness and contentment I now have.

Due to circumstances our lives for the last five years have been anything but happy, but now things are looking better and we have finally moved on to our 25 acres. I suppose the way to describe our home here is quiet. There is no difference between day and night because there are always the sounds of the birds, or frogs or ducks. It's so quiet and peaceful you have to sit and listen just to absorb it all. When you look around you grow to be friends with the big ghost gums which stand so proud, they all are so different yet all so grand.

How can I describe the joys of living on the land? The excitement we all share when a downpour of rain fills the dams, overflows the tanks and greens up the paddocks? We call rain like that a blessing and stand and watch it in awe.

It's amazing the things that make you happy. Like how good it is the first time, Eric, your new rooster crows, and you go to the chook shed and congratulate him and tell him, 'Well now Eric you're in charge!'. Every time your 'girls' lay their eggs, and the excitement it causes when they see you coming with their cooked peelings and mash. Just watching the kitten play with the grass-

hoppers in the paddock for hours, or the ducks coming in for a landing on the dam all put a smile on your face and a warmth in your heart.

Life becomes slower as you realise that everything takes time on a property. It's a 10 minute walk to the mailbox, but that's great exercise and great thinking time. As you walk and say hello to the cows and sheep you catch a glimpse of a rabbit or kangaroo. The dogs follow, excited about their walk to the letterbox.

No garbage service here, so recycle is the answer. Another feel-good chore which makes you not only think about what you buy but how you can recycle it, or use it again; so many uses for 'rubbish' you once just threw out.

I must admit though the four-letter word has been heard quite a few times, such as the time I stood on a bull-ant nest while I was trying to fix a gate, or got bitten again while trying to close another gate at night. To discover the biggest red back (spider) on the piece of firewood you have just cuddled all the way back from the shed is something which I won't forget. The discovery of termites is another horror. We still stand back and shudder when we discover another chewed up log or stump. 'Don't worry, I'll get the little buggers,' is my husband's favourite expression as he



comes across another termite mound.

When friends and family visit, it's always such a happy time. A walk to see how high the dam is, or how the cows are growing. The smiles on their faces when they go home with a pumpkin, or a jar of honey or some eggs. We often wonder what they think as we watch them drive off down the winding driveway. As they open yet another gate, wave and go on their way, are they thinking 'how could you live way out here'? Or are they going home with a peacefulness that living out here gives?

All I can say is, follow your dream; you'll know when it's right, and don't leave it too long. It's hard and constant and lots of work, but the rewards are plenty and will stay in your hearts forever. Every day you learn something new, see something new and gain so much more than anything money could ever buy.

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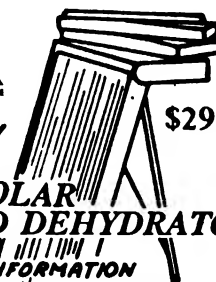
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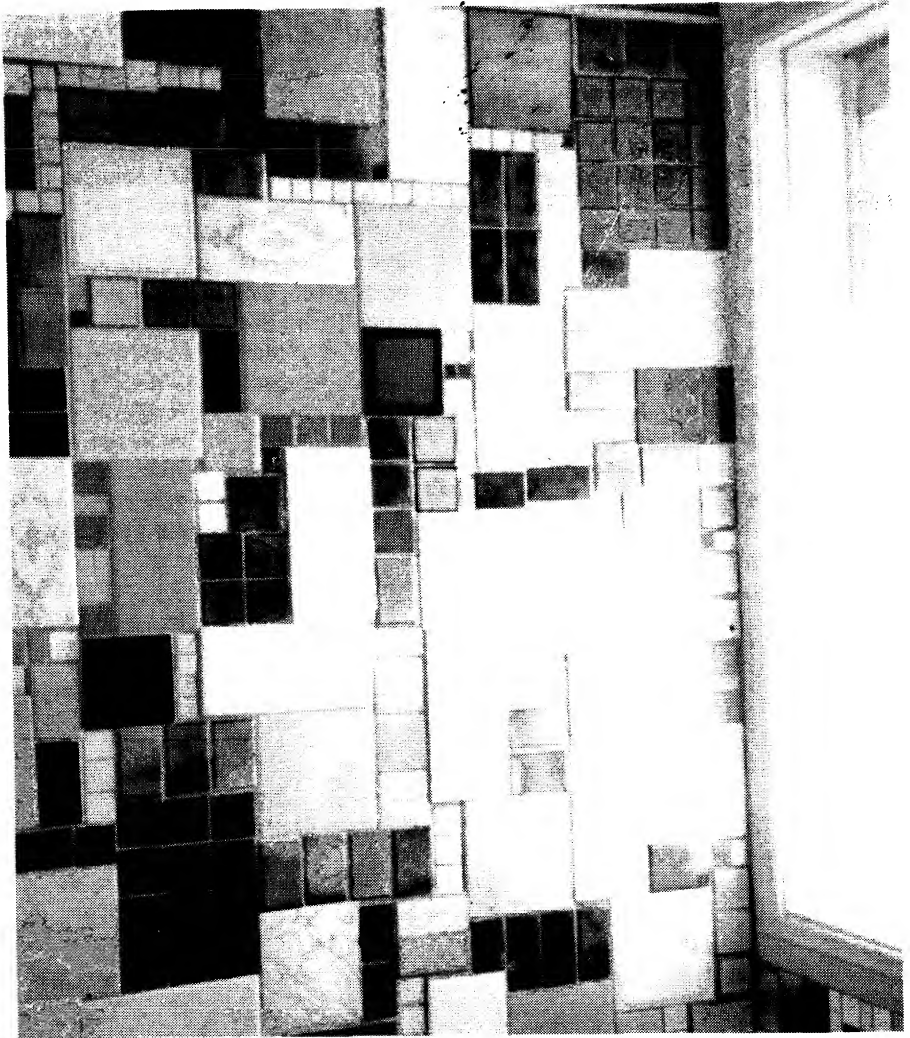
by Jenny Lacey, Talbot, Vic.

We have recently been working on the splashback tiling in the kitchen and bathroom. I thought readers might like to see a photo and a quick explanation of how we did it. The photo shows a finished tile wall bathed in sunlight from the one small window. Relatively even spacing of the assorted sizes was achieved with the help of matchsticks as spacers. A stick supported the soap dish tile until the glue set. The reason for tiling the bathroom this way is simple. Over a period of time we had acquired boxes and boxes of tiles of all shapes and sizes and didn't see the point in buying flash tiles when we had all these.

We had lots of the white oblong ones and pink square ones, plus numbers of others in quantity, so, at first, I tried laying them out in patterns. They looked hideous! I must say, before I go any further, that we marked out the size of each wall on the floor in the bathroom and laid the tiles out in each of those spaces, doing one wall at a time. After two days of this, I threw my hands up in the air and said, 'There's only one way to do it - I'll make it look like a patchwork quilt'. So we did.

I simply put down the largest tiles, trying not to have too many of one size or colour too close together, then filled in the gaps with progressively smaller tiles. With the tiles laid out flat on the floor, I could step back and look at the overall effect as I went, changing it around if it looked a bit uneven. Fortunately, the colours all seem to go together, even though there are so many of them, perhaps because most are pastels, which seem to blend, or browns, fawns and orange shades, with lots of white.

As for the details of construction: Ted drilled holes in the mud brick walls, filled the holes with wooden plugs, screwed battens into the plugs, then nailed cement sheet to the battens, using silicone sealant where necessary. The tiles were picked up from the floor, where they'd been laid into an agreeable 'pattern', starting from the bottom, and stuck onto the cement sheet with tile adhesive. We tried to only do about 30-40 centimetres high at one go, because



One of the patchwork tile walls. A unique effect for very little outlay.

the large tiles tended to be too heavy and pushed other, lower, tiles out of position if too many were done at once. Once the adhesive was well set, there were no problems. After 24 hours of letting the last of the glue set, the grout was applied.

Because the bathroom is an internal room, with the mudlock on one side and a hallway on the other and just one small window of opaque glass at the end of the bath, it tended to be a bit gloomy, so I painted the mud brick walls with a vinyl low-sheen paint in a pale apricot, a fortunate choice, as the grout we were given soon after was almost the same colour. This pulls it all together and now everyone who sees it says how

effective it all looks.

Now, I'm doing the kitchen in patchwork tiles and hope it will look as good as the bathroom! It was fiddly, but fun, and cost nothing, except for having to buy a few sheets of little tiles for filling in. This might be of help to someone who can't afford arms or legs to finish off their bathroom or kitchen.



BLACKWOOD SOAP

The chopped leaves of the Australian blackwood (*Acacia melanoxylon*) make a good soap substitute. Use a couple of handfuls for every basin of water - grease will come off even in cold water.

ETHEL'S ENGLISH LEICESTERS

by David Miller, Shepparton, Victoria.

When Ethel and Peter Stephenson first retired, Ethel found she had the time to develop her flock of coloured sheep for spinning. Through this there evolved a love of wool and the wool industry, a developing knowledge of the history of Australian sheep and wool production, and consequently an appreciation of the qualities of the English Leicester breed. Now, 20 years later, Ethel and Peter have retired again and Ethel manages her own stud flock of English Leicesters on their farm at Goorambat in Victoria.

Ethel Stephenson became interested in sheep through her involvement in spinning and woolcraft. She had one of the earliest flocks of black sheep in Victoria which she gradually converted to Border Leicester through the purchase of black lambs from breeders of white Border Leicesters. With this experience, and that gained through the farm's commercial flock, which involved different crossbreds, she learned about the characteristics of many breeds and decided she liked British breeds best. It took some time, and a course in profes-

sional woolclassing, before she settled on the English Leicester.

Ethel loves the English Leicester's large size, quiet temperament and its ability to produce twins. This year, most of her ewes have produced twins, with some producing triplets. In general, the lambing percentage is usually above 150 percent and the ewes are good, quiet mothers. If any lambs become orphans, the ewes are so quiet that a lamb can easily be fostered onto another ewe without fuss. Mothering an orphan is easily done at night.

Another important quality of the English Leicester is its long lustrous wool. This can be up to 30 centimetres long at shearing and has many uses. It is primarily sold for carpet making but the innovative breed society has developed other markets. These include the manufacture of roller lappings for use in the wool industry, the manufacture of dolls' wigs (a surprisingly large market), rug weaving and in specialised knitting yarns available by direct mail. The wool off the young sheep is especially lustrous and looks and feels like mohair. When



Ethel Stephenson with an English Leicester ewe and twins. The breed is built to withstand cool, wet weather and ewes commonly produce twins without difficulty.



These English Leicester rams clearly demonstrate the productive qualities of the breed – large muscular frame with a heavy fleece of long lustrous wool.

mixed with mohair in a knitted garment, it is difficult to tell the difference between the two fibres. English Leicester wool is also excellent for those interested in dyeing their own fleece. It is a strong fibre which takes dye readily without losing the important qualities which make a handmade garment attractive – the soft handling and high lustre.

Ethel has a stud flock of 100 ewes, as well as a small flock of black purebreds for spinners who require coloured wool. Sheep are shorn once each year, although they could really be shorn three times every two years because the wool grows so quickly. There are no problems in selling the wool commercially to the carpet wool trade. The lambs are also popular because they are lean, grow well and there is plenty of competition for them in the market. Ethel also sells English Leicester rams to commercial producers who use them over their Merino flocks to produce fat lambs for market.

Ethel obviously loves the challenge of breeding her stud stock to a standard and constantly trying to improve quality, but that extra work must pay for itself. This is where the breed society helps the breeder by developing markets which demand the higher qualities

breeders are trying to attain, and promoting the product. Ethel finds the English Leicester society full of active members who take every opportunity to promote the breed and the unique products and crafts made from the wool. English Leicester studs are in southern Australia because the breed is suited to cool, wet conditions, so breeders are not large distances apart, making it relatively easy for them to get together to promote their breed and sell their products. A number have their own wool labels and issue a sampler of the various colours of wool available. This has proved popular at shows where people are always drawn to the lustre and soft handling qualities of the wool.

More and more sales of breeding stock are being made to owners of small properties looking for a dual purpose sheep of character, which will produce a good carcass and useful wool for hand-spinning, natural dyeing and knitting. With a purebred flock you know exactly the quality and quantity of the wool that will be produced each year, and can plan ahead to make and sell products from it. The quietness of the breed is also important to new farmers. Ethel says that if she wants a fleece she just

ENGLISH LEICESTER

AT A GLANCE

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CONTACT

Ethel Stephenson is secretary of the breed society.

For further information on the breed, ph 057-641-298.

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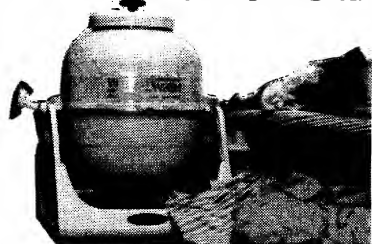
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puts a ewe on a halter and shears it off while the animal is standing tethered!

Ethel talks about her introduction to sheep with some amusement. She started with a flock of black crossbred sheep because they were unique and useful for woolcraft, then graduated to a white stud breed because she needed a larger gene pool from which to select to improve the quality of the stock. She has always tried to develop opportunities to learn about the English Leicester breed, so became interested in showing the sheep soon after she started the stud twelve years ago. Since then she has entered the Melbourne Show and the Melbourne Sheep Shows with a team of twelve whenever possible.

The selection of sheep for a show starts by observing the individual animals in the paddock. Show stock must possess an even body shape, be well grown and have a confident outlook. They then must exhibit an excellent growth of wool evenly distributed over the body. Ewes also should have a lamb at foot to show they are fertile.

Show preparation is not intensive but consists of special feeding to display the excellent productive qualities of the animal and its superior genetic make-up. It is then given some training to get it used to the hustle and bustle of show day with strange people and animals going all over the place. The wool must be kept clean, dry and soft for show day, so the sheep are rugged. This merely consists of sewing a hessian bag around the body of the animal to keep out the dirt and mud.

The English Leicester breed has played an important role in the history of Australian agriculture. In the 1830s, wool was of little value because it was coarse and there were no processing facilities for it in the colonies. The only wool that had any value on the export market was fine wool, and trials were being started with the Spanish Merino to see if this could be grown for export to the UK. Sheep were only important for mutton production to feed the growing population. Here the English Leicester excelled because it was twice the weight of the other sheep in the colonies and was used in crossbreeding programmes to greatly increase production in local flocks.

When it was found the Merino could produce fine wool, the English Leicester was used to increase the bodyweight of the breed and to increase the weight of wool produced. This led to the boom in the Australian economy through fine wool production in later years.

The English Leicester was also used in crossbreeding programmes with the Cheviot breed to produce the Border Leicester, a breed that for many years has been popular for fat lamb production and crossbred ewe production from the large Merino flocks in Australia.

These days, however, numbers in English Leicester flocks are lower and it has been classified as a rare breed by the Australian Rare and Minority Breeds Association.

Ethel Stephenson just loves her English Leicesters and is happy to be involved in preserving and promoting a breed that has so much to offer, as well as having had such an important role in Australia's history. She is also fascinated by the many original and unique survival characteristics of this old breed. One of them she found by accident when preparing a ewe and twins for a show. She could not keep the wool clean on the sheep's back and found that the lambs were jumping up on mum's back at night for a lovely warm sleep, safe from any danger and away from the wet grass.



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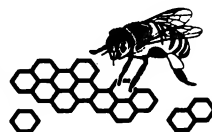
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DROUGHT PLANNING AND MANAGEMENT

by Mary Horsfall, Longwood East, Vic.

If there is one other thing apart from death and taxes which appears certain in this country, it is that thanks to ENSO (El Nino Southern Oscillation) Australia will always be subject to droughts, which have been largely unpredictable in onset and duration. Scientists have only in comparatively recent years begun to realise the crucial influence ENSO has had on the ecological development of our continent.

Many of us, having just emerged from the national and personal trauma of a prolonged drought, will be taking stock of our garden and farm situations, evaluating how we coped and devising plans to help us cope better in the future. We must accept the inevitability that there will be similar or even worse situations in the future. (Examinations of coral growths indicate that there have been even more prolonged droughts in the past than this most recent one.) We cannot prevent droughts, but it is within our power to implement strategies to help minimise their impact.

Records indicate that after a drought there are usually at least a couple of years of above average rainfall. This is the paradox we must live with and turn to our advantage. Now is the time to begin implementing a drought planning strategy for our gardens and farms.

IN THE GARDEN

Plants

By now you will be only too well aware of what plants have survived with minimal or no watering and what have not. Find out from your neighbours what plants coped well in their gardens also and base your replanting or new development plans around these hardy specimens. If you share seeds and cuttings it will reduce the expense as well as increasing the chances of success with plants which have adapted to the area. Local nursery proprietors might also be able to advise you of suitable varieties. It might be possible to incorporate species indigenous to your area which have adapted genetically to the particular soil and climatic conditions and will be most likely to thrive through stressful growing conditions.

Of course most of us will also want a bit more variety in our gardens. When-

ever possible plant the more thirsty or delicate varieties together and in a protected area close to the house for ease and efficiency of watering. Then, if you are reduced to bucket-watering them during a drought, you at least have less distance to carry buckets. (See Margaret Tacey's article in GR 109 for suggestions about using 'grey' water.)

Organic Matter

The more organic matter your soil has the healthier and more water efficient it will be. Mulch all existing beds frequently with whatever you can obtain: straw, spoiled hay, newspaper, cardboard, lawn clippings, autumn leaves, rotted manure. As old mulch decomposes it will enrich the soil, adding nutrients and organic matter and encouraging earthworms and beneficial soil micro-organisms. You will thus be constantly improving the water retention capability of your soil, so plants will require less frequent watering and suffer less stress during dry seasons.

When developing new areas, build up no-dig beds. Start now so your beds will be well established by the next dry season.

Watering

Give some thought to your watering system. The introduction of water restrictions during dry seasons is inevitable in most areas, and in country areas many gardeners are dependent on tanks and dams so require an efficient watering system. Wasteful sprinklers which water paths and roadways are definitely out! You can buy sprinklers designed to water various shapes of gardens, so choose those most suited to your needs. Drip irrigation and microspray systems are very efficient, easy to install, and not too expensive to buy. You will probably recoup the initial purchase price very quickly in the lower cost of your water.

Lawns

Lawns are notoriously heavy water users and require lots of energy, both personal and fossil fuel driven, to maintain them. In spite of this most of us like to have at least a small green area to sit in and for children to play on. At least it looks cool during summer, if you can keep it green. Choose a tough summer growing grass variety such as kikuyu or buffalo which will thrive on infrequent

water. There is also a lawn seed available called Arid Smartgrass that is said to be drought and cold-tolerant, evergreen, and able to grow in full sun or up to 80 percent shade. When mowing your lawn, leave the clippings in place as mulch whenever possible. This will gradually add organic matter and help reduce watering in the long term.

ON THE FARM

Soil

Soil is the most precious resource on a farm and a drought management strategy should have soil conservation as the highest priority. Organic farmers report that they feel the effects of drought later than others and recover more quickly. This is largely because their farming methods concentrate on constantly building up the organic matter in the soil, so moisture retention is good and erosion prevented.

A soil cover of vegetation and mulch should be maintained at all times to prevent wind erosion. The mulch can be from failed crops, crop stubble, or pasture residue – enough to cover 80 percent of the soil to a minimum height of 12 millimetres (100 percent cover on lighter soils). As well as preventing erosion this will ensure that seeds, spores and soil micro-organisms are maintained to take rapid advantage of the rain when it does come. Perennial pastures will respond faster than annuals after a drought. Some other recommendations to help conserve soil are as follows:

- Do not burn stubble.
- Avoid cultivating the soil during a drought.
- Maintain buffer strips of vegetation around dams to prevent erosion and runoff into the dam.
- Do not graze failed crops, they are better retained as mulch to protect the soil.
- Standing crops provide better soil protection than flattened ones.

Monitor

Evaluate how your farm has reacted to the drought. Determine which areas are less productive and what can be done to improve future productivity. Note which water storages gave out first and decide whether it is economically viable to improve them. If at all possible upgrade

all water storages. Do grain storage facilities need to be enlarged?

Always work within the capacity of the land and its environment. Do not plan long-term strategies based on good rainfall years. This doesn't mean that you shouldn't take advantage of good years when possible, just don't be dependent on them, and maintain flexibility. For example, it might be possible to grow an extra crop or temporarily increase the stocking rate, but you should also be ready with a plan for which stock to sell first when the need arises (and it will).

Trees

Carefully positioned plantations will bring many positive benefits to any farm, including stock protection, salinity reduction, erosion control, wind control, some fodder crops and even a cash return from eventual sale of timber in some cases. They also provide important ecological habitat and regeneration areas which help maintain a natural pest and predator balance throughout the farm, thereby eliminating the perceived need for pesticide use. Now is a good time to undertake a farm planting programme to take advantage of the good season(s) that usually follow a drought. There is much assistance available for tree planting, so take advantage of this to help with the cost of site preparation and fencing. Landcare groups and the Department of Conservation and Natural Resources can give advice.

Choose indigenous species, where possible propagated from locally grown and collected seed, for the best chances of survival and strong growth. Prepare the area well before planting to maximise subsoil water retention. This will include weed control and deep ripping on heavy or compacted soils. Water thoroughly at planting, mulch trees and protect them from vermin.

Saltbush

There has been a lot of interest in the use of saltbush for salinity control, soil stability, stock shelter and fodder, with many farmers reporting success from their saltbush plantings. In some areas, especially those with poorer soils and land degradation problems, saltbush can be a valuable part of a drought planning strategy. Remember though, that it does not provide all of an animal's nutrient requirements; they will need pasture (four hectares grass per hectare of saltbush) or other supplementary feeding.

Some research has shown that stock grazing saltbush will also need to drink about four times as much water as those on pasture, so take this into account as well. Despite these limitations I think it's far preferable to have paddocks of saltbush than paddocks of bare ground and it does have benefits other than as a source of fodder in many areas.

Stock Management

The most economically and environmentally sustainable strategies for stock will vary according to your particular area. However, no matter where you are it is important to maintain a sustainable stocking rate. Overgrazing can have disastrous long-term economic and environmental effects on soils and pastures. Many farm advisors hold that it is better to rationalise stock numbers sooner rather than later when faced with the possibility of a drought. Make and implement decisions early, even if they later prove to have been unnecessary.

In our area it is common for full-time farmers to agist stock for periods of the year on the smaller acreages of hobby farmers who might have little or no stock. No money changes hands, but the hobby farmer in return will receive help and advice when needed, the loan of equipment, or bracken slashing and other tasks for which he/she might not have the equipment, done free of charge. This barter arrangement suits all parties admirably and is of particular benefit to farmers during dry seasons, giving them a little extra flexibility in stock management options.

The CSIRO, producers, and relevant government agencies are currently undertaking a project, named Droughtplan, aimed at providing information to help farmers make decisions about stocking rates, selling, agisting, feeding options and enterprise mix. One case study in western Queensland for example, showed that a more stable cash flow resulted from selling or agisting a cross section of stock, rather than an entire class or age. (See end of article for contact details.)

An organic farmer from WA has found that his best strategy is to sell off his steers and older farm-bred female stock early, maintaining just a breeding nucleus during droughts and never agisting or buying feed. This farmer has a mixed stock enterprise, so he can sell different animals throughout the year to maintain a cash flow.

When soil vegetation cover is low

(below about 30 percent stubble in clays and clay loams or 50 percent on sands and sandy loams) it is recommended that stock be moved to a containment area and kept there until pasture growth is re-established. This will prevent compaction, erosion, and loss of seed and spore content in topsoil. Your local CNR officer can advise about appropriate soil cover for your area, when stock should be moved to a containment area and requirements for that area. It's a good idea to begin preparing it now so you are ready to move into action at the appropriate time during the next drought.

Be Prepared

We might have a climate and soils which are often heartbreaking for farmers and gardeners, but we do not need to be completely at their mercy. We can improve our soils and plan appropriate strategies now to enable us to cope better with future droughts.

The CSIRO has recently announced that after 12 years of research scientists are on the verge of being able to predict the appearance of ENSO and expect to be able to do so with increasing accuracy in coming years. This climate information will enable agricultural scientists, engineers and hydrologists to develop ways of helping farmers make decisions which will reduce the impact of poor years and maximise the potential of better years. Other good news on the climate front is that the Indian Ocean has been found to have a moderating effect on ENSO in some areas. A booklet, *Coping With Climate*, detailing these discoveries has been produced by the CSIRO and is available from them.

References and Resources

For information about Droughtplan contact: Dr Mark Stafford Smith, CSIRO Division of Wildlife and Ecology, PO Box 2111, ALICE SPRINGS 0871. Ph: 089-500-111. Fax: 089-529-587.

Rural Research, Autumn '95, a CSIRO quarterly, subscription \$22 per year. Available from: Rural Research, PO Box 89, EAST MELBOURNE 3002.

Trees and Natural Resources, March '95, a periodical of the Natural Resources Conservation League, subscription \$25.50 per year. Available from: NRCL, 593 Springvale Rd, SPRINGVALE SOUTH 3172. Ph: 03-546-9744. Fax: 03-547-8791.

Beautiful Gardens With Less Water, John Patrick, published by Lothian Books, RRP \$12.95.

Arid Smartgrass enquiries: 08-297-2165. GR Water Index, send 3 x 45 cent stamps to: Water Index, PO Box 242, EUROA 3666.

Coping With Climate: to obtain a copy ring Dr Chris Mitchell on 03-586-7550.

PRESERVATION OF VEGETABLES IN OIL AND VINEGAR

from CSIRO, North Ryde, NSW.

The good oil on preserving foods safely to prevent botulism.

It is now a relatively common practice to bottle vegetables and herbs and spices in either oil, vinegar or a mixture of both. This is done both commercially and domestically and the products should be refrigerated below four degrees Celsius.

Products which are treated in this way include chopped garlic, garlic cloves, sun-dried tomatoes, chilli, ginger, eggplant, capsicum, mushrooms and various mixtures of these and similar ingredients. While these products are safe if refrigerated, they represent a potential food poisoning hazard unless certain basic precautions are taken in their preservation.

This fact was unfortunately highlighted in Canada and the United States in the 1980s when two serious outbreaks of botulism occurred in which chopped garlic in oil was clearly identified as the source of botulism toxin. Botulism is a rare disease, particularly in this country, but because of its severe, debilitating symptoms and relatively high mortality rate, remains a major hazard in home preserves.

Authorities in Canada and the United States reacted to the above incidents by preventing the sale of garlic-in-oil products in which refrigeration was the only barrier to the growth of the bacterium, *Clostridium botulinum*, the organism which causes botulism. These products are now required to contain an additional barrier to *C botulinum* such as acidification. In 1991 Australian authorities took similar precautions by regulating that this class of product must not have a pH greater than 4.6. The pH of a product is a measure of its acidity. Foods with a pH below 4.6 do not in general support the growth of food poisoning bacteria, including *C botulinum*. The necessary pH adjustment for these products can be achieved only by adding acid to the vegetable material. Vinegar, which is a solution of acetic acid, is the usual choice. Citric acid and lemon juice are other possible acidifying agents.

Attempts to preserve these products without acidification seem to be based on two false assumptions. The first of these is that the addition of oil has a

preservative effect. This is incorrect. The only function of the oil is to prevent oxidation from the air in the container which can lead to discolouration of some foods. By excluding air from the surface of the vegetable, one is establishing anaerobic conditions which actually favour the growth of some types of bacteria. Unfortunately, *C botulinum* is one of these bacteria.

The other incorrect assumption which is often made is that some herbs and spices, and especially garlic, have significant antimicrobial properties. The preservative effect of these materials, including garlic, is slight and inconsistent, as the botulism incidents in Canada and the United States prove.

It is therefore essential that sufficient acid is added to the vegetable before oil is poured on so that any *C botulinum* or other potentially dangerous bacteria cannot grow.

Vinegar prepared for domestic use contains four percent acetic acid. Vinegar should be added to the vegetable component of these preserves before any oil is added so that the ratio of vegetable to vinegar by weight is not greater than three to one. For example, to make 400 grams of preserved garlic, one would mix 300 grams of garlic with 100 grams of vinegar. The resultant mixture will then contain approximately one percent acetic acid which would ensure a final pH below 4.6. This will not guarantee that the products will not spoil if not kept properly refrigerated, but it will ensure they do not become toxic.

If vegetable products such as tomatoes, are dried prior to being stored in oil, a different set of circumstances applies. Correctly dried vegetables and herbs will not support the growth of food poisoning bacteria, but they may still support the growth of spoilage organisms such as yeasts and moulds. Moulds will usually only be a problem on exposed surfaces but yeasts bring about fermentation in the absence of air.

Vegetables and herbs to be packed in oil without treatment with vinegar should be dried almost to crispness. Tomatoes, including sun-dried toma-



Food preserved in oil is very popular, but there are safety aspects to be aware of.

atoes, are a special case. The pH of fresh tomatoes is normally just below 4.6. When the tomatoes are dried, the natural acid components are concentrated and the pH is reduced. It will often be close to 4.0 in the dry product and therefore the risk of food poisoning is eliminated. No such safeguard exists with other vegetables, however, and these must be either acidified or properly dried before being covered with oil. This includes small quantities of garlic or herbs which may be added to other preserved vegetables as flavourings.

DISCOLOURATION OF BOTTLED GARLIC IN VINEGAR

Users of bottled garlic in vinegar are occasionally alarmed to find that the product has turned green or blue-green. These colour changes do not make the product unsafe but are obviously undesirable.

The problem of garlic changing colour is associated with the addition of acid which changes the normal pH of the product. This is precisely what is

required to ensure that the garlic remains safe but the change in acidity brings about chemical changes in pigments in the garlic.

All plant materials contain various pigments some of which change colour as the pH of the plant tissue is changed by the addition of vinegar or other acids. The most common of these pigments are the anthocyanins which may be blue, colourless or red depending on the pH.

These pigments may be involved in some colour changes observed in preserved garlic but American scientists have identified another more general explanation.

Certain amino acids, natural components of foods, are responsible for many of the pigment characteristics of the onion family which includes garlic. The American scientists have shown that the outstanding difference in composition between garlic which turns green and garlic which does not is the presence of much higher levels of one particular amino acid in the green garlic.

It is not possible to tell by looking at untreated garlic whether it is likely to become green on crushing and acidification. However, the work reported indicated that if garlic bulbs are stored for four weeks at a temperature above 23°C

prior to processing, the production of the green pigment is prevented.

This may not be practical at the domestic level, but could be a valuable precaution for commercial producers.

This information has been reproduced from a leaflet produced by the Food Research Laboratory, CSIRO Division of Food Science & Technology, PO Box 52, North Ryde 2113. Ph: 02-887-8333.



SWOLLEN FEET

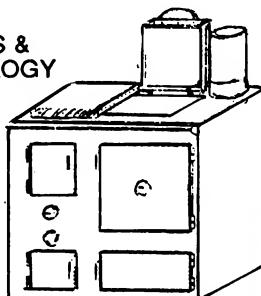
Cut a whole potato in half and rub this over your feet. Leave the juices on your feet overnight and this will help reduce swelling and discomfort.

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TRACTOR SAFETY

Farm tractors cause the most fatalities on Australian farms, with 39 percent of all farm fatalities being attributed to tractors and associated implements. In a study of Australian coroners' reports from 1982 to 1984 it was found that there was a tractor related fatality every 11 days. During this period, 71 percent of the deaths were the result of a tractor roll-over. Roll Over Protective Structures (ROPS) are designed to provide a safety zone for tractor operators in the event of a roll-over, and provide a cost effective solution.

Run-overs also represent a significant cause of tractor related fatalities. These generally fall into three categories: Falling off while the tractor is in motion, particularly young children being taken for a ride; run-overs while mounting or dismounting from a moving tractor; starting the tractor from the ground. Follow these basic rules to prevent run-over.

- Never allow passengers on the tractor.
- Always stop the tractor and apply the park brake and lower linkage equipment before dismounting.
- Never start the tractor from the ground.

For more information contact: Farmsafe Australia, PO Box 256, MOREE 2400.

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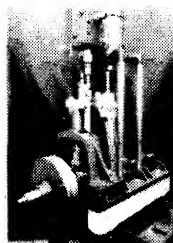
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ECO NEWS

GENE PATENTING REJECTION

The European Parliament, in a historic and unexpected decision, has delivered a sharp rebuff to those governments and the biotechnology industry seeking legal support for the patenting of life forms. On March 1st, the Parliament, which is directly elected by the peoples of the European Community's member countries, ended a seven-year controversy by decisively rejecting legislation that would have permitted the patenting of human genes, cells and other forms of life. It was the first time the Parliament had used new powers to kill off a piece of legislation.

From *Cornerstones* April '95, the newsletter of the Right Livelihood Award Foundation.

A DOG OF A PROBLEM

It is possible that the dingo in Australia will be extinct within the next century. As the dingo is able to hybridise with dogs, its gene pool is being compromised by feral and domestic dogs. There is still a pure dingo population in the north of Australia and if this is to be preserved the problem of cross-breeding will have to be addressed. This might include a prohibition on keeping dingoes as pets and sterilisation of dogs in areas where contact with dingoes is considered likely.



HABITAT CONSERVATION FOR RARE SPECIES

Forestry field staff in the Narooma district of NSW have recently made two important wildlife finds. The first is a female golden-tipped bat, only the third of its species recorded in southern NSW. The second is the southern barred frog, which is the first such capture of the species south of Sydney in 10 years. The relevant authorities are currently discussing forest management plans that will protect these rare animals by conserving their habitats.

BIOLOGICAL FUNGICIDE

A recent decision in the USA has initiated a two-year phase out of 36 pesticides, 32 of which are still registered for use in Australia. Hopefully, it is only a matter of time before these will also be withdrawn here, making the use of or-

ganic pest control measures of increasing importance. The CSIRO has recently announced details of a mixture of natural microbes it has been trialling for use as a fungicide to combat such problems as anthracnose disease of avocados, mangos and bananas. The mixture is ready for further trial, registration, and commercial development by Australian companies. It is based on microbes which appear naturally in the human food chain, is simple and cheap to develop, and effectively controlled fungal fruit disease in early tests.

For further information contact: Dr Anna Williamson on 07-377-0268, or Marshall MacKay on 07-377-0382.

DIOXINS IN COTTON

German researchers have found some cotton clothing to contain high levels of dioxins. These may originate from chemicals used in the growing of the crops, or from textile finishing processes. The use of an organochloride called pentachlorophenol (PCP) to prevent mildew during transport of cotton may also be a contributing factor. PCP use is severely restricted in Australia, but it is used in some countries from which cotton clothing is imported to control fungal growths at various stages of manufacture.

Dioxins from clothing can build up in the skin, causing health problems in chemically sensitive people. They can also be transferred to other clothing when the dioxin affected garment is washed. The chemical is thus transferred to shower, bath and laundry water, domestic sewage sludge, sewage treatment plants, dry cleaning residues and household dust, becoming a pervasive contaminant in the environment.

ENVIRONMENTAL MANAGEMENT COURSE

A five-week course in Canberra (Nov 6-Dec 8) of particular relevance to resource planners and environmental managers from both government and private sectors, aims to foster development of plans, practices, policies to encourage gender-balanced environmental management within a framework of sustainable development principles. The course will include: integrating, safeguarding and valuing resources, drawing on community skills, and gender-balanced en-

vironmental education. Presentations, discussions, field work, seminars are all part of course work.

For full details of course, including costs, please contact: Dr Frans Arentz, Manager Forestry & Environment Division, ANUTECH P/L, Canberra ACT 2600. Ph: 06-249-0617, 06-249-4713. Fax: 06-249-5875.



ORGANIC APPLES

Research in New Zealand, in areas of severe codling moth damage to apple crops, has found the use of slow release pheromone dispensers to be an effective control measure. The pheromone duplicates a scent released by the female moths that triggers male searching behaviour. The artificial pheromone confuses the males by overloading their antennae, by which they sense pheromone, and thus prevents mating.

Peromone can also be used in baited sticky traps to indicate the most effective times to spray orchards with a codling moth granulosis virus.

To control black spot in apples, two sprays of lime sulphur, applied both early and late in the season, have proven to be effective.

CARDBOARD BUILDINGS

Gridcore, is manufactured in the US from such recycled materials as waste paper, corrugated cardboard, glossy magazines, and plastics, and could replace plywood or gyprock in construction applications.

The method is to create a fibre slurry which is dehydrated and pressed on to fibre mats, smooth on one side and honeycombed on the other. Two mats are glued together, grid-to-grid, to create a light, strong panel.

Gridcore can be made paper-thin for packaging, or up to 75 mm thick for walls, floors and roofing. It is nontoxic, can be sawed, nailed, painted or veneered, and can have its core filled with insulation.

We don't know of an Australian distributor/manufacturer at this stage, but for more details the American company can be contacted at the address below.

Gridcore Systems International, 5963 LaPlace Court, Suite 207, Carlsbad, California 92008. Ph: Int+1+619-431-8494. Fax: 619-413-2834.

Livestock Health and Management

Information You Need but Haven't Known Where to Ask

If you have queries on any type of livestock send them in and we'll get our panel of experts to research the problem for you. Send them to Livestock Advice Page, Grass Roots, PO Box 242, Euroa 3666.

DUCK EGGS

I'm writing from cold miserable Melbourne where we have had the coldest and wettest winter for years. My wife and I are keen GR readers and find it a really valuable resource. We are currently preparing our vegetable garden area for the warmer months and we are very keen on extending our herb garden. However, we have become concerned with our two ducks. We would like to know if anyone could give some information about why our ducks would be laying soft shelled eggs. The eggs just collapse. We feed the ducks a general purpose layer feed with a mix of maize and wheat. We supplement this with lettuce and other scrap vegies. They also have a constant supply of shell grit.

If anyone can offer some suggestions of what we could do to improve the quality of eggs we would really appreciate it. Anyway, thanks GR for a great mag.

Philip Byrne,
45 Tullip Cres, BORONIA 3155.

Hopefully, by the time this answer has been printed the ducks' shell problem will have improved. It is not normally realised that ducks, like fowls, will lay soft shelled eggs. With fowls this is usually confined to the best layers and has a tendency to occur at the beginning of lay. It occurs at this time because the hormones controlling ovulation have not yet settled down. The result is that several ovulations will occur on the one day and only the initial egg will carry a normal shell. Ducks also suffer fluctuating hormone levels at the commencement of lay, and because your letter was posted in August when poultry commence their spring laying it would be fair to assume this is the problem and a temporary one at that. It is more commonly encountered with this species at the end of lay, in autumn, when hormone levels alter substantially again. Fowls at this time tend to lay small eggs or even yolkless eggs rather than produce soft shells. The one vital piece of information you omitted was whether they were laying normal shelled eggs as well. The only alteration that could be suggested re the diet would be to reduce or eliminate the grain for a couple of weeks and just provide the general purpose layer feed plus greens and vegie scraps. It may be the ducks are gobbling up the grain in preference to the general purpose feed and not receiving a balanced diet. This should not be the case with free range birds but testing

for it will eliminate one of the possible causes.

If the problem persists, recontact us providing the age of the ducks, their breed if known, what sort of general purpose layer feed you are providing (pellets or a mash, protein content, etc) and how frequently the soft shells are occurring.



CALF CONTAINMENT

I hope there is someone out there who has some suggestions to help me with these problems. We have two calves, seven months old, bottle fed until weaned and excellent dispositions. One is a woolly Jersey the other, I do not know; as a young calf she was a lovely red and now is a very dark red almost black and bigger than the Jersey. They are presently tethered up on alternate days on our land (17 hectares). This in itself is a problem as there are lots of obstacles for them to tangle up in, wattles, branches, grass trees to name a few. We have no fences as yet but are working on clearing the scrub; it will be a few more years before that and fences are up. We have tried an electric fence but to no avail even with two wires going around. One of the problems is we are unable to get a good earth, it is so dry, even down to 20 feet, but we need something to enable these friendly creatures room to move and graze on what little grass there is, and it needs to be mobile.

We also want to have some goats but need to sort out these difficulties first. The calves are both tied up at night near the house (we also have a dingo problem), or confined with the chickens, much to the chicks' dislike. I am a novice at all of this and would really appreciate any help and suggestions, apart from dining on veal. The calves have been threatened that we would even eat them raw if they didn't shape up, but they just roll their big brown eyes and put their heads up for a scratch, so it is back to untangling the rope every 30 minutes or so. They have to be kept close to the house, if they were any further away I would have to pack a

picnic lunch and stay. Hmm doesn't sound too bad, but unfortunately not practical.

Also, what can we do for ticks? There is a never ending 'supply' of them. Have tried an expensive commercial spray, but it was only good for five weeks and it is rather messy and quite dangerous to use so would rather not have to resort to this type treatment.

I do use commercial worm mixture, but again would rather not, but until I find another way will continue, especially as the calves don't often get to be tied up at night in new spots and I feel worms will become rampant. I also use bought tablets for the dogs and cats. All help and suggestions will be appreciated. Thanks.

Suzanne Jackson,

Lot 58 Tablelands Rd, ROSEDALE 4674.

As much as you love your little heifers it would be fairer to them if you found another home/agistment/barter, etc. Tragedies invariably happen when we try and run before we walk, and this could happen with your present set-up. Perhaps you can find temporary accommodation, which will give you the time to solve the fencing problems. Put goat keeping on the back burner too until you can enclose them easily and successfully. The bottom line is always the animals' welfare and quality of life. In the meantime, purchase a copy of Pat Coleby's 'Farming Naturally and Organic Animal Care', so you can approach parasite control and health from a sustainable system. Advice on parasite control in dogs and cats has been covered previously on this page. Although our advice may sound unsympathetic, we are putting the animals first - this should always be the keeper's priority. Good luck.



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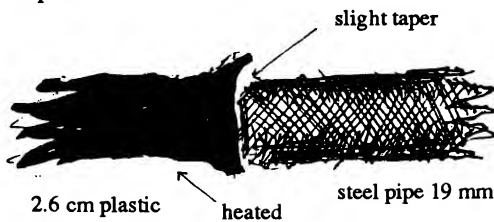
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FEEDBACK LINK-UP FEEDBACK

Dear GRs,

The diagrams (side view) of the **BUSHFIRE TRAILER** (GR106) placed the tanks somewhat behind the axle – this was wrong. They should be forward so that weight is placed upon the towbar. Many people are caught by placing the weight in the wrong position. This causes the trailer to snake, especially when the brakes are applied. The only solution when this starts to happen is to drive out of this predicament by accelerating, then very, very slowly braking. A jack knife can be deadly.

Around our farm we have used mainly 2.5 cm black plastic agri-pipe. We have saved a mint by using recycled galvanised **PIPE FITTINGS**. To attach taps, elbows and etc we use pieces of 19 mm galvanised pipe. The plastic pipe is heated and the steel pipe pushed in to make a waterproof joint, no need even for clips. The below drawing should explain.



It is the plastic fittings that can make this system expensive.

An Old Bushie.

N Carr, DARKES FOREST 2508.

Dear GR People,

I have been a nursing sister for 44 years of my life. I was bitten by **WHITE-TAILED SPIDERS** three times. The first time on my foot. I had eight big blisters, purple toes, swelling up to my knee and severe pain. The doctor opened the blisters, confirmed that it was a white-tailed spider bite and let me go home. So I had to help myself. An old book gave me a clue what to try, and I used some commonsense from my nursing knowledge.

Within two weeks I healed my foot with natural ingredients anyone can buy in the supermarket. I had no reaction on my general health. I made great efforts to get this knowledge into the public. No money – no luck. The Food and Drug Administration wrote to me that I could publish, but not call it a cure.

How many people still suffer years later from the effects of that bite, even after antibiotics had been given? I would be very happy if some doctors or naturopaths would make an effort to try and experience the tremendous beneficial effect my self-help method has. They will be amazed and would shorten their treatment time. I would be very happy to relieve this suffering.

I will answer all enquiries. My doctor has confirmed my healing in writing. This method can be obtained by sending \$8.00, half of this money will go to help kids off the street.

Christa Palfy,

4/35 St Leonards Rd, HEALESVILLE 3777.

Ph: 059-625-255.



Dear GRs,

I'm a single parent on a small income. I'm employed on a casual basis. My choice is to be at home as much as possible and provide for all our needs where possible. I'd sit in my unit and dream about having my own small place without the big mortgages and full-time work that most people have.

I'd read GR mag, buy local newspapers, ring real estate agents, only to be laughed at about what I was seeking. About 18 months later I saw a private ad and went to check it out. The price was too dear and it was too far out, or so I thought. One week later the same ad appeared with the price dropped by \$7000. It was 3.9 kilometres to the nearest school, has a bus service, neighbours. The one bedroom cottage on half an acre

was only four years old and priced at \$35,000. My dream became reality. I quickly set about signing the contract after having it checked out by a draughtsman friend of mine.

It hasn't been easy but very rewarding. I have wonderful neighbours. We're ten minutes to the nearest town, twenty minutes to the nearest city. We have the best of both worlds.

Coral Witt,

PO Box 5300, WEST BUNDABERG 4670.

Dear GR Folk,

First of all, thanks for this very informative magazine and the wonderful interchange of ideas that are pursued through its pages. We, Joanne, Madeleine and Alan, are looking to move. We already live on an MO, but work, etc, has meant that we need to live closer to Lismore. We are wanting to build a pole frame and mud brick house.

We would like to correspond with anyone who wishes to share their experiences with **BUILDING A POLE FRAME AND MUD BRICK DWELLING**. In particular, we would like to visit some people within a few hours' drive of either Lismore or Brisbane to look at some mud brick houses and to look at and discuss construction techniques and the pros and cons of building in this style. Thank you once again and we look forward to the many wonderful contacts that I know we will make.

Alan Hill, Joanne Davidson & Madeleine,

PO Box 347, NIMBIN 2480.

Dear GR Readers,

A young (5 year old) relative has **EPILEPSY**. Standard drug treatment has controlled his seizures somewhat. Has anyone had success in assisting treatment with diet/vitamin therapy, please, or can you point me to any information on the subject? Thanks.

Mrs C Mason,

PO Box 1567, ORANGE 2800.

Dear Grass Roots,

I recently found an article in a magazine on a building technique called **CORD-WOOD** or **STACK-WALL**, which originated in Canada, using firewood logs. My wife and I are very interested in this building technique and we would love to hear from anyone with any information on this way of building. We will answer all letters. Thanks for a great magazine.

Douglas Hoyle,

6 Riverside Cres, FLOWERDALE 3658.



Dear GRs,

I was exposed to the pesticide Chlorpyrifos in 1991 at work – spent most of the next 15 months trying to put my body back together. I suffered lung, liver, kidney and **IMMUNITY SYSTEM PROBLEMS**, which I either overcame or learned to live with. I have also been hypersensitised to chemicals/pollutants.

From March to about May this year the glyphosate 'Roundup' was heavily sprayed in my work environment and I have been deteriorating ever since. I left work 17/8/95 because I am too ill to continue, have not yet been accepted for compensation because I have not been able to find specialists who will support my claims sufficiently. I still have not had any treatment of any kind, because, as I am repeatedly told by doctors, my problems are outside their area of expertise. I have however been advised to leave Canberra as soon as possible and find a clean environment to live in.

My present symptoms are: very painful stiff arms and legs, inflamed joints, especially lumbar, Sjogren's disease, constant chest pain associated with irregular heart rate, asthma, chronic fatigue.

I take vitamins, ginseng, some Chinese herbs, have acupuncture from time to time (which helps the pain and unlocks my arms for short periods).

I don't want sympathy or charity – I need information on anything that might help me get well. I would be very grateful for any suggestions regarding vitamins, herbs, diet, location. There must surely be someone who has experience with this sort of thing. If so, please contact me.

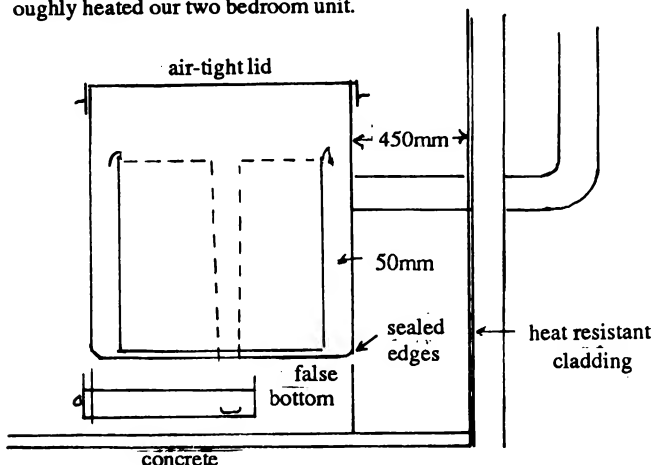
Margaret Prideaux,

3 Haugh Place, OXLEY 2903.

FEEDBACK LINK-UP FEEDBACK

Dear GR Co,

The cooker described by the Indian students in GR98 reminded me of a **SAWDUST BURNING HEATER** that my parents used in the 40s. This was roughly the size of a potbelly stove, fitted with a flue, and sat on a concrete base. It had an open-topped inner cylinder, about the size of a 50 litre oil drum, that lifted out for filling. This was done by tamping very firmly around a tapered wooden stick that sat into a 50 millimetre hole in the bottom. When the cylinder was filled, the stick was withdrawn, creating a central air passage. It sat above a close-fitting ash drawer, which principally controlled air flow. A small metal cup of metho was placed in the ash drawer, lit, and slid under the air passage, leaving drawer partly open. This heater could be made to glow, or controlled for use as a cooker, then closed up to smoulder all night. It thoroughly heated our two bedroom unit.



Don Young
RMB 1575, KATUNGA 3640.

Dear Readers,

I wonder if others feel as strongly as we do that **ALCOHOL IS A POISON** and if drunk 100 percent proof you die? So instead we camouflage its potency and kid ourselves that it is okay to kill ourselves slowly.

Chris Williams,
MAYLANDS 5069.

Dear GRs,

I have read an article on **OXYGEN THERAPY**, using hydrogen peroxide internally. This was in the 1993 Golden edition of *Wellbeing* magazine. I would like to read more about it. Can any readers recommend any books or other material?

Barbara Hadden,
12/106 Williams St, GOOSEBERRY HILL 6076.

Dear GR Friends,

After many years of moving around, my husband Paul, five year old son Jordan, and I have finally created our dream. Moving around a lot can be an expensive business (even if it is for work related reasons). There are rents and bonds and reconnection fees of phone and electricity, just to name a few. It soon ate up our meagre savings and made it very difficult to get ahead financially.

About one year ago we received a windfall, a cheque for \$5000 from Paul's mum. This was a great boost to our morale and we quickly tucked it away towards a deposit for a house/land. After scratching and saving over the next few months we managed to accumulate another \$5000. With \$10,000 we set off in search of a lending institution, only to be told we either needed a lot more money or we didn't fit the normal criteria of first home buyer. This criteria was that we weren't a two income family (I was not working at the time) and we didn't have a track record of saving regularly over a period of years.

This leads me to the other part of this story which is about having a dream. Ever since I was very young I had dreamed of living on a hill overlooking the ocean in an alternative style cottage, something a little

different, maybe mud brick or stone. I imagined myself in my pottery studio with an inspiring view to the sea. I also imagined the cottage would be very affordable. I was and still am a dreamer and an optimist and what we dream can come true. (I think we must also be careful of what we dream for it could also become a nightmare.)

However, in saying this I did not think my dream would be so near to reality. The very affordable cottage with a view over rolling tree covered hills to the sea did manifest itself, in fact it found us, not the other way around. The very cute two bedroom cottage is on five acres, it has room for a pottery studio underneath and is solar and gas powered (not at all primitive). We have fruit trees and a vegie and herb garden.

The location is magic. Our neighbours are lovely and have been generous with their time and energy in making us feel welcome. It all sounds just too good to be true and the reality is that our piece of paradise is on a **TENANTS IN COMMON** or MO. Unlike a lot of MOs this one has no communal land, everyone has their own share to do with as they see fit - it's more like a strata title, but isn't. It has been established for 18 years and although legally a bit of a nightmare, internally it seems very stable. The houses are all well built to council standards and although ideally we would have loved it to be freehold we would not have been able to afford it if it was.

The main disadvantage is lack of financial gain on a property like this one and for many this is a very big consideration. We did weigh up the advantages and disadvantages before we purchased and the advantages came up trumps. However, for us the main objective was quality of lifestyle. The other big question is how are we going to buy the house/land on an MO? Lending institutions are not interested in loaning on these types of properties so you must either have cash or do as we did. We borrowed the amount for the land and got vendor finance for the house. It sounds messy, but it was really very simple and straightforward.

Obviously, my dream is going to be different from yours and there are those who think Paul and I are quite mad, but where would we be without dreamers and risk takers? Life can be an adventure if you allow it.

Jena Bedson,
TOMEWIN 2484.

Dear People at Grass Roots,

Just a note to say how much I enjoy your magazine. My daughter started me many years ago reading hers, but when she moved up north I had to buy my own. I am interested in anything natural: gardening, permaculture, chickens (I have Silkies). I also do massage, reiki, aromatherapy. I have reared four children and have seven grandchildren. If anyone would like to write to me I would like to hear from them. Also I am interested in growing **GINSENG** and would like some info if you can.

Jan Roberts,
14 Muraban Rd, DURAL 2158.

Dear Readers,

I want to do some dying using plant material. The book I've read mentions the different **MORDANTS**. Alum is the one I will use, but the problem I'm having is the high cost of tannic acid which is to be used with the alum. No way will I pay \$16 a gram. Has anyone out there got any ideas and information with which you can help me? It would be most welcome.

Suzanne Carrick,
10 Atlas Dve, ST HELENS 7216.

Dear GR Readers,

Could anyone help me to locate a good friend and his wife whom I've lost contact with? His name is **BERNARD STUCKER** and wife **RHONDA**. He and his mate Rotten used to stay at our place in Darwin NT. Would love to contact him so if any reader knows him or Rhonda could they please pass on an address for me? His nickname is 'Tiny', due to his height. Also, could any GR reader fill me in on how to grow **TOBACCO** and cultivate it, as my seed supplier failed to send relevant info. Thanks for a great mag and to all helpful info supplied.

D Mitchell,
Lot 13 Longs Rd, Bucca, MS 295,
BUNDABERG 4670.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

Thank you for the article on the patchwork duvet cover. Like Carole Hobbs, I once bought a **COCKROACH INFESTED HOUSE** in Queensland. First we checked all flyscreens were tight and whole, put wire screen doors back and front, draught extruders on the exterior doors, checked out the skirting board and floors for any holes, caulking them. In all cupboards I checked for cracks, and vacuumed twice a week, even in the cupboards. Put Epsom salts under all shelf paper and rugs. Over floor drain holes in bath and laundry I placed a square of vinyl or rubber with mat over to cover drain hole. In the shower I covered the drain hole each night and put plugs in all basins and sink after use. Flywire chimney and all exterior vents as well. Like Carole, I kept tableware in a closed container and all food in sealed containers. Eventually we did overcome our roaches, so take heart and keep trying!

Iola Greensticks, grey water: We pass our **GREY WATER** through two filters – a four gallon holey drum of charcoal and a styrene box of sand it sits in; the garden is around this. I feed clothes wash water through this now, but in Queensland I had sink water that yielded a continual supply of tomato, capsicum and pawpaw seedlings in the charcoal. Renew charcoal when it turns grey.

Carol and Milton Block's **WHITE ANT PROBLEM**: Fowls have a thing about white ants, apparently they relish them. Can you build a portable chook pen and keep a fowl or two where the ants are a worry? We use a stock crate as a temporary fowl pen when a neighbour gives us cockerels.

I made Pamela Odijk's bread and butter pudding from leftover apricot loaf – it was a delicious reminder of a sweet I last had as a tiny child! Thanks Pamela.

This year I grew gourds, just out of curiosity. My surprise mixed pack yielded none of the lovely gourds as in the GR photo – they were what I hoped to grow, but I was disappointed, in a way.

My crop is **GIANT GOURDS**, about one metre across, half a metre high or more. I would like to make them into containers with designs painted around the outside. Does anyone know how to prepare these gourds and how best to cut a hole with top as lid, suitable paints to use and glazing? Please, I would appreciate help – local library only has a recipe from pre-Spanish Mexico on how to clean interiors using plants growing in Mexico!

We have New Guinea beans – what does one do with a **GIANT NEW GUINEA BEAN** almost two metres long and still growing? I grow them for their rapid growth into excellent shade, and would like to utilise the fruit. Any ideas? Apart from their main use in New Guinea!

R Dark,
Guyra Road, TINGHA 2369.

GR 101 contained an article about using gourds. Also try contacting Kevin Jessop, Maroomba Station, BONSHAW 2361.



Dear GRs,

This permaculture couple will be **TOURING NEW ZEALAND** in October '96 and would like to visit like-minded GR readers. Please reply with name, address, phone number and a little information about your area so we can arrange our itinerary to suit.

Steve Bulloch & Jan Bolton,
PO Box 1146, MACKAY 4740.
AUSTRALIA.

Dear Grass Roots and Readers,

I am a long-time reader of GR and appreciate a publication which links people together and has true meaning. I live with my family on a seaside block in the **SOUTH OF TASMANIA**, an hour out of Hobart. The soil is extremely sandy and water is a precious commodity; we have no availability of bore water. We have lived here for six years and have had trouble in growing both vegetables and herbs. I would appreciate any information from readers on what we can grow under such conditions and what is the best way to go about it. In summer parts of

our block look like a shifting open-cut mine, how can I bind it all together and start producing? We have had some success with container planting. As keen as we are, we are running out of ideas.

S Smith,

PO Box 25, ROKEBY 7019.

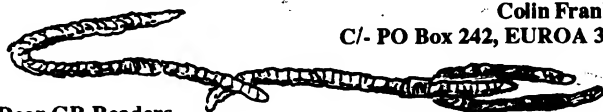
Try building up a series of no-dig beds. Start with a small one first to see how it goes. See the article 'A Vegie Patch From Scratch' in GR 107.

Dear Friends,

Can **JOAN EVANS**, formerly of Bridgewater on Loddon, please contact Colin Franklin? Please write to GR address.

Colin Franklin,

C/- PO Box 242, EUROA 3666.



Dear GR Readers,

May I invite your comments through these pages, regarding **DOMESTIC WORM FARMS**? A few years ago, many Sydney suburban councils were advocating that city people would have to have worm farms in the foreseeable future, just to reduce the huge volume of garbage going to the garbage tips. But quite apart from that, I had long been contemplating some means of providing my garden with a supply of animal manure, that didn't come preprocessed and pelletised in a plastic bag. Guinea pigs had been high on my list of possibilities, but we'd had a family of these likeable creatures some years ago, they fell victim to stray dogs and I doubted I could guarantee the safety of a new lot of them.

Eighteen months ago, whilst visiting an organic farming festival, I noticed a worm farm display, this interested me as I had read some American books on the subject and had wondered if worm farming could be the answer to my problem. The worm farm consisted of a set of stackable plastic boxes and a starter kit of worms, the unit was compact in size and seemed well suited to my suburban lifestyle. The vendor was demonstrating the simplicity of operating the worm farm and claimed that it would become capable of processing the vegetable scraps from a small family, without attracting lots of flies.

So I bought the worm farm, came home and set it up, happy in the thought that it wouldn't attract dogs and that it would only need attention for feed and water about once a week, the feed was stuff I would normally throw out or bury and the ecology would benefit, so whacko! If it proved successful, the worm farm could be expanded almost indefinitely and should provide all my garden needs.

As you can imagine, worms are tricky blighters to count, so after 18 months I really don't know how many I have working for me now, suffice to say there appear to be a good many more than when I started, I've also bred an awful lot of flies and slaters as well as providing a supermarket for little black ants, I am learning to reduce this problem, but doubt it can be eliminated entirely. But what really concerns me, is that at this stage my worm farm still only consumes about a double handful of peelings each week, much less than I would have anticipated. Am I being over optimistic? Yes I do sprinkle garden lime on the feed regularly to prevent over-acidity, also I have been giving a sprinkle of blood and bone over recent months, because I read somewhere that the protein stimulates breeding. It's anybody's guess whether this is really doing any good.

I suppose I can sum up by saying that although I wouldn't regard my worm farm as a total failure, I am certainly disappointed with the results I've experienced so far, especially as it hasn't yet produced enough 'end product' to start using it on the garden. So what about the rest of you who have small-scale worm farms? Are you jumping for joy with the results, or are you scratching your head like me? Can't wait to read of your experiences.

Barry Stephenson.

16 Carol Ave, JANNALI 2226.

Dear GR Readers,

If there is anyone out there who knows of an effective method of eradicating **SAFFRON THISTLE** it would be most appreciated.

H Elms,

Mudgee Rd, ILFORD 2850.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

I am writing for some advice. I have a fifteen year old daughter who has just been diagnosed as having **ATTENTION DEFICIT DISORDER**, after many years of seeing education psychologists. The doctor wants her to take Ritalin as she is in year 10 and Jemma finds it hard to concentrate. I was wondering if anyone else has any other ways of coping with this challenge. She has terrible anger tantrums and I am a single parent with two other children.

Janise,
C/- PO Box 242, EUROA 3666.

Dear Grass Roots,

What a wonderful magazine GR is! I have just discovered it and I am enjoying it immensely. I am an inmate of the city who would love to be able to give my talents and energy to something of substance and worth. At 27, my experiences with the city and the pressures and waste that go with it, have left me feeling burnt-out, drained and depressed.

I am seeking **NEW HORIZONS** in all aspects of my life. I am looking for all ideas, suggestions, and opportunities that anyone may be able to provide. I have rediscovered my interest in everything horticultural and I would love to be able to learn more about **PERMACULTURE** and all of the other methods of so-called alternative self-sufficiency. Rammed earth, straw bale and mud brick building are also areas I would like to learn more about. So if anyone can help I would be most grateful to exchange my labour for some sort of mutually beneficial arrangement. I am interested in working in Victoria, but should an opportunity come about I would consider other places as well.

My partner and I would also be keen in taking on some sort of caretaker position for a few months, if not longer, on a small property or farm. Alternatively, does anyone have a small home or cottage in the Daylesford area with a couple of acres for rent? We have a limited budget and could afford only around \$60-\$80 per week in rent, but we seek a home where we could practise our self-sufficiency, grow our flowers and learn all of the real pros and cons of country living. Thanks for your time and help, I look forward to hearing from you.

Andrew Brown,
Flat 1, 3A Hawksburn Rd,
SOUTH YARRA 3141.



Dear GR Readers,

I have noticed that in several issues of GR, some people are seeking to contact others who are on a **RAW FOOD - FRUITARIAN DIET**. One who is on this diet of 'life' foods may find her or himself a bit isolated and alone. Although the rewards in good health are high, there could be some social aspects which need adjustments and one may experience some discomforts during the detoxification/transition period.

It may be of benefit to know that there is a 'Fruitarian Raw Food Network' which has been going for over seven years now and publishes a quarterly newsletter for support, learning, articles, booklists. It encourages contacts between the participants. The Newsletters now go to members in 13 overseas countries and Australia wide. Anyone interested could contact: 'The Fruitarian Raw Food Network', PO Box 293, TRINITY BEACH 4879, or ph Rene, 070-577-273. A nonviolent diet brings a non-violent world!

Rene.

Dear Readers,

We are currently living on three and a half acres in south-east Queensland and intend to move back to NSW by the end of 1996. We lived around Armidale in the 1980s and I enjoyed the cold climate. I find the Queensland heat a bit hard to take, and rain is an almost unknown phenomenon here. Though winters are glorious, if not a touch on the warm side when out in the garden.

We would like to make contact with readers living on the **NORTHERN TABLELANDS OF NSW**, in an arc from Armidale to Dorrigo and as far north as Tenterfield. (No extreme ideologist or religious fanatics please.) We are interested in your experiences with owner building or renovating, councils, land prices, heating, gardening, climate (in particu-

lar summer temperatures and rainfall), and how lone builders managed. Cindy would particularly like to hear from female builders. We would appreciate the opportunity to visit some owner-built homes in the future, both on the Tablelands and within a couple of hours of Brisbane. Are there owner building workshops being run within a couple of hours of Brisbane? Readers' experiences with providing short-term cabin accommodation on their properties, as a means of supplementing their income, would also be welcome.

Cindy & John,
PO Box 43, LOWOOD 4311.

To The Editor,

I have enclosed photos of the beginnings of my farm here in Calingiri. I have just purchased my first lot of seeds to grow medicinal herbs on an organic basis without using chemicals. I do not know what yields to expect though if anyone has any help to offer on propagation, times to propagate and transplanting I will be grateful.

We have solar power though our needs for power are few, we use gas and kero lamps, we cook with gas, and if it gets chilly we light a fire.

We plan to put up two sheds for winter and I plan to build a mud brick shelter and it does not give me much time before winter arrives and the rains are here. My importance lies in getting ready to plant herbs. The machinery I have is nil so I will try 'no tilling gardening', building up organic matter and making my own fertilisers from seaweed, manure and fish.

My boyfriend Bryce and myself have been having good success with our vegies, planting according to the moon, and I must say there is 50% improvement. I have noticed the importance of buying good quality seeds from good suppliers, the standards from nonhybrid seeds is very noticable.

For a toilet we use a movable long drop, the problem is digging the 'long drop'.

As of yet we have not had any severe setbacks, pests and bugs could be a problem, though with **WWOOF**'s help and lots of manual labour, anything can be achieved. Calingiri is 150 km north-east of Perth and anyone is welcome to visit, any advice will be greatly appreciated. This is an expanding farm with each hurdle being overcome day by day, and new solutions arising often.

I thank you for your time and energy and I look forward to hearing more from you in the future. Love and light.

Louise Plant,
Bogbean Farm,
C/- PO CALINGIRI 6569.



Louise Plant relaxing at Bogbean Farm, where she is growing medicinal herbs.

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FEEDBACK LINK-UP FEEDBACK

Dear GRs,

Wanted, **ADVICE ON THRESHING GRAIN**. I would be most grateful if any readers could provide advice on the best ways to thresh small quantities of grains such as wheat, oats and lupins, and how to remove the seed kernels from corn cobs. Maybe a reader has plans or advice I could use to build a small thresher. I would be very happy to cover the cost of postage incurred by any person who can assist.

Lindsay Armstrong
3 Rosedale St, CRAIGIEBURN 3064.

Dear Mary,

Hi there to you all over at GR. I hope this may help some readers from GR 108.

Adair Siliato: **REPAIRING NONSTICK SURFACES**. A repair kit is available under code TFRS, \$19.95 + p&h. Reply Paid 16, Morley House Direct Marketing, Box 149 Moorabbin 3189. Ph: STD Free 1-800-331-370.

Jan Rowland: **GROWING FLOWERS AND HERBS IN POTS**. I would suggest your best reading is *The Herb Growers Handbook for Australians*, by Gillian Painter, ISBN 1-86953-138-8; *The Flower Growers Handbook* by Geoff Bryant, ISBN 1-86953-172-8, Herron Books, 91 Main St, Kangaroo Point, Qld.

Shirley Trewin, **DOLLY PEGS** are available from most handcraft suppliers in your state.

Allan Powell: **AUSTRALIAN SANDLEWOOD** (*Santalum spicatum*) is available from Seedarama Seeds, Charlestown, NSW.

C Hayes, a recipe for **TOFU** (soy cheese) which yields 500g. You need 200g dry soy beans, 750 ml water, another 750 ml water, 1½ g Epsom salts, 250 ml water. Soak beans overnight. Drain soy beans and blend in blender along with 750 ml water. Blend for two minutes. Pour blender contents in a flour sack or tea towel and squeeze, collecting the soy milk in a pan. Return contents of sack to blender and add another 750 ml water. Blend for two minutes. Strain as the first time and add liquid to first soy milk. Dissolve Epsom salts in 250 ml water and set aside. Bring soy milk to boil in a large pan, stirring constantly. Reduce heat and boil gently for five minutes, stirring constantly. Remove milk from heat. Whisk in enough of salts solution to form a curd. Not always necessary to use all of the solution. Strain through double thickness of cheesecloth and let stand 15 minutes to solidify. Rinse gently in cool water and store in refrigerator in water in a covered container.

John Rodger: **MOTHER OF MILLIONS** is best killed by covering with old carpet until it dies from the lack of sunshine and water. Mistletoe must be cut out of the plant concerned. The best way to get **RID OF ANTS** is the use of tansy leaves in your cupboard, ants hate it.

Amanda Tariau: **A NONTOXIC INSECTICIDE** can be 100g quasia chips, 100g soft soap, 22 litres water. Place the chips in four to five litres of cold water and leave them to soak overnight. Bring to the boil and simmer for one hour. Dissolve the soft soap in a separate vessel of water then mix together and stir well. Strain and make it up to 22 litres. Use as a spray. It will keep slugs and snails away from vegetables, sparrows from young seedlings, and possums from eating young tips of shrubs and fruit. It will easily wash off and although bitter tasting is completely harmless.

Colin Franklin,
C/- PO Box 242, EUROA 3666.

Dear Grassies,

Can anyone tell me where I might be able to buy a **BOTTLE CUTTER**? I make candle lanterns out of copper and brass, and a milk bottle with its bottom cut off makes a perfect chimney. I use these lamps to illuminate the cabin of a small sail boat. Two of them provide ample light for reading, while one is quite adequate for general use.

They have many advantages over an oil lamp. First and foremost is their lack of volatility. They do not give off the smell of kero and they do not promote heart attacks if they are accidentally knocked over. A half candle acts as a rough timer so that if the lamp is securely set, or better still, hanging, you can nod off over a book and your lamp will extinguish.

I know of, and use, several of the old-time techniques of bottle cutting such as a heated metal ring, a burning string and quench, the use of an

angle grinder, etc. But these methods have a high attrition rate of bottles. Years ago I had a commercially built cutter that worked like a charm, but alas, I gave it away.

I do not sell these lamps but they are easily made, if rather labour intensive. While milk bottles make excellent chimneys, coloured wine bottles make a very decorative lamp, especially if the brass and/or copper base is highly polished.

If anyone would like a sketch of how to make them, send me a stamped, addressed envelope and I will be glad to oblige.

I love your magazine. It's a great cross-pollinator of techniques and ideas.

Bob Hollis,
20 Hocken St, NTH MACKAY 4740.

Dear GR Readers,

I am a retired person looking for a **MORE SIMPLE AND LESS STRESSED** lifestyle. I am interested also in organic foods etc. Any contacts advice or suggestions would be very much appreciated.

EC Hutchins,
C/- PO Box 242, EUROA 3666.

Dear Friends,

I have lost an address from a **LADY IN HIGHFIELD** in Queensland (near Toowoomba). I wrote to her two years ago around Christmas. Could the lady give me a ring: Leny, 075-544-1295.

L Van Der Hulst,
'Bell-Brook', Mt Lindesay Hwy,
RATHDOWNEY 4287.

Dear Grass Roots Readers,

Could someone supply me with a recipe for **MARINATED FETA CHEESE**? My own attempts have not been too successful, with the final results tasting too much like vinegar and not the herbs. Thank you for a very informative and useful magazine.

Karen Mines,
6 Gall St, ALICE SPRINGS 0870.

Dear GR Readers,

Last winter I acted as a temporary, unpaid governess on a **NSW SHEEP STATION**, and enjoyed the experience so much that I thought others might like to hear about it. The placement was organised by VISE (Volunteers for Isolated Students' Education). Retired teachers are offered transport costs, board and lodging in return for supervising the **DISTANCE EDUCATION** (correspondence and radio) of children living in isolated situations. Length of commitment varies by mutual arrangement, usually six weeks, but may be more or less. It is possible to obtain placements almost anywhere in Australia. Parallel organisations (REVISE) operate in WA and SA and VISE covers NSW, Qld, and NT.

The NSW co-ordinator, Marg Healey, 1469 Koorlong Ave, Irymple 3498 (Ph: 050-246-904), can put you in touch with co-ordinators in whatever area you are interested. Also of course she will handle your enquiries if you are a parent needing help. You don't have to be in desperate circumstances to qualify – just the need for some respite from educational supervision, as well as illness, or special educational difficulties, and your call for help will be heeded if volunteers are available.

Mrs Healey would also like to hear from nonteachers who would be willing to help with household tasks, thus giving busy mothers a chance to concentrate on the children's schooling. VISE calls these volunteers 'angels'. Wouldn't you like to be an angel on earth?

My own experience was all good. A chance to enjoy a new lifestyle in very different surroundings from my home in hilly north-east Victoria; a pleasant stay with a very kind and friendly family; and a few weeks return to the work I've done for most of my life were all positives, and I can't think of a single negative. I hope someone out there will try it, as the need is great. I had a letter recently from the SA organisation asking for three immediate volunteers in the Broken Hill district.

Best wishes to all GR people. I love reading about your efforts to find a better way of life. Many of you are living much the way that we lived in my youth, and I'm old enough to be nostalgic about that.

Agnes E O'Donnell,
WANDILIGONG 3744.

FEEDBACK LINK-UP FEEDBACK

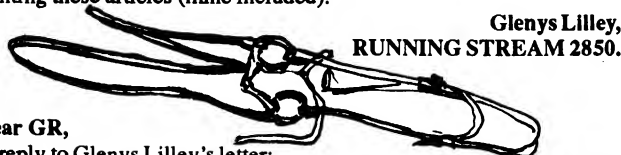
Dear Grass Roots,

As an equestrian of many years I feel that I have to write and point out some of the errors in your **HORSE SAFETY ARTICLE** in GR 107, in particular the statement that you 'include a noseband so that the horse cannot open its mouth and bite you or anyone else'. Not only does this make all horses sound like vicious beasts, a noseband will not stop a horse biting and is never used for this purpose. Cavesson nosebands as seen on show bridles are purely decorative, although sometimes are used to attach a standing martingale (in show jumping events) to limit the horse's head movement. Hanoverian and drop nosebands etc are used to keep the horse's mouth closed so that he can't avoid the bit. These should not be used by novice riders anyway as the poor horse is probably opening its mouth to avoid your unsteady hands and the pain they cause. Most horses do not bite and in 20 years of horse ownership I have never had a horse that bit, including a stallion. Some young horses will try to nip and if they are reprimanded they normally consider you to be the boss horse and won't try it again. Horses that do bite or kick should not be considered for children or beginners. There is no need to put up with a confirmed rogue as there are enough good horses in this world without these vices.

The reason you lead the horse from the side is because when startled horses tend to think that the safest piece of ground is the one that you (their herd leader) are standing on (not because they are likely to bite). If you're in front you cannot see this coming, when you're at the side you can see what they are doing and get out of the way or calm them. No, horses don't like loud noises and people jumping about but they do get used to it. If you always creep around them, when something noisy does happen you will get a big reaction. Horses will get used to anything with repetition as long as it isn't painful to them, so train them to put up with scary things, just be prepared for a reaction at first and persist calmly until they are used to it. There are many books and videos on this. (Dr Miller's *Foal Imprint Training and Horse Training* video is great and there are a lot of books on horse psychology which are useful in seeing things from a horse's point of view.)

The head shot of the horse and bridle is a complete disaster. The halter is dangerous placed like this. It is interfering with the bit. It should be under the bridle which means that you can safely bridle the horse while still controlling it with the halter and as it has two buckles it can be removed from under the bridle if you wish. In the photo both the halter and the noseband (which is not necessary anyway) should be much higher (especially the noseband) and should be about two or three finger widths below the cheek bone. As it is pictured both of them are pressing on the most sensitive part of the nose (the closer to the nostrils the more sensitive). The bit pictured is about one hole too loose, it should cause one wrinkle at the side of the mouth. The bridle also looks like it could have a slightly longer browband so that it doesn't pull at the back of the ears. Often cheap bridles although labelled a certain size seem to have parts either too big or too small for your horse, mostly in the throatlatch/browband department. (Dare I say this is often why they are cheap.) Too big can be fixed either by your saddler or with a hole punch and for too small you can often buy those parts to fit your horse.

Horses learn very quickly, bad things as well as good, and usually sum up people pretty quickly. If you are nervous they think that there must be something to worry about and react accordingly, so always remain confident. Maybe you should check with pony club etc before printing these articles (mine included).



Glenys Lilley,
RUNNING STREAM 2850.

Dear GR,

In reply to Glenys Lilley's letter:

Thanks for your comments. It is always interesting to hear how other people manage their horses. When we bought our pony we knew nothing so we went to a reputable (Equestrian Federation of Australia) riding instructor to find out. We were fortunate in that we also managed to find one who is very particular about horse management and safety.

Nosebands: You are correct about the position of the noseband. I don't know how it came to be positioned so low. We have been told that the simple noseband is used to prevent biting and to do it up as tightly as possible. Although it is probably not obvious from the photo, none of our tack was the cheapest available and all of it has been checked for size and fit on the pony by one of our riding instructors.

Rogues? The first thing our riding instructor told us when we began to learn was to always remember that the horse is still a 'wild' animal. It is also considerably larger than the people who ride and work around it. Everyone must have heard the stories of the person who has had a horse since it was young and how it has never kicked, bitten or done any other damaging action in the 15 years they have known it. And then one day when they were careless, their leg or pelvis (if they were lucky) was broken, when the docile animal kicked them for no apparent reason.

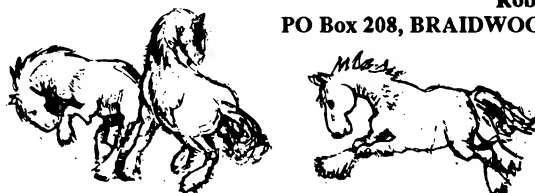
Of course some loud noises will not bother a horse or pony. Ours doesn't twitch when screaming air force jets swoop low overhead and the rest of us run for cover. But she nearly goes berserk if a dog yaps or barks near her. Even an unexpected butterfly will make her spook on occasion. Nonetheless, whether a horse is used to loud noises or not it is still better not to startle them. Loud noises and abrupt movements are more likely than many other things to do this than calm people who attend to their needs in a businesslike fashion.

Horse and bridle photo: As you can see in this photo the bit is not actually being used. The pony is being led by a lead rope attached to the halter. The reins (attached to the bit) are double looped over her head so that they are out of the way and do not cause any problems.

Horses do learn quickly. That is one of their greatest charms and also one of the hardest things to manage when you are used to the slow abilities of many others in the animal kingdom. I hope this has cleared any doubt you may have had over this article.

Robyn Jean,

PO Box 208, BRAIDWOOD 2622.



Dear GR Readers,

I was quite concerned to read about the **PATENTING OF SEEDS**. I can see all sides to this question, but I wonder how effective the policing of these laws will be. I suppose if it checks the people who are making big business out of illegal seeds it will be alright. About the farmers not being able to lend each other seeds in an emergency sounds really tough. Maybe if they form seed co-operatives and get the co-op to order the seeds to issue to members as required. I don't know if that will stand up.

I am having a problem with **CARDAMOMS**. They grow leafy and in great abundance but don't bear any fruits. I guess they are growing in the wrong climate in the Hunter Valley. Has anyone a solution to this? My husband has threatened to pull them out if they don't do something soon.

Betty E Bochenek,

39 High St, WARATAH 2298.

Dear Friends,

Are there are GR readers out there who may be able to identify the following three people last seen together in Bendigo shopping centre about 3 or 4 years ago.

Woman: tall, slim, crew cut hair, wearing earthy coloured bush-type jacket, work boots, silver coloured ID-type bracelet on right hand.

Woman: short, hair brown, above shoulder, cropped on top, wearing khaki/tan jacket/parka on one occasion, other time, wearing earthy coloured long poncho/cape.

Girl: long blonde hair tied back in pony tail. Aged approx 11-13 years. Arm was in a sling. Possibly daughter of above mentioned woman.

They may drive a mustard coloured Land Rover-type vehicle. Do they still live in Bendigo? Are they OK? If you can assist please contact:

'Genuine V',

C/- Box 242, EUROA 3666.

FEEDBACK LINK-UP FEEDBACK

Dear GR Readers,

Pam Cole's article about the Patterns at Silvertrees (GR 108) really touched me. What a wealth of truth there is of **SIMPLE PLEASURES** in her colourful detailing of their daily routine. A popular song of the late 70s urged us to 'take the time to touch the morning'. Wise words! It's something I do regularly, especially since we moved to our small farm in 1993. The seasonal moods of nature are a sight to behold here: ever-changing cloud formations, great mountain views, morning summer sunshine through grand old ironbark trees, the wind blowing golden waves across paddocks of tall grasses, not to mention the numerous birds and the wildlife.

I can vouch for the contentment of sitting on a 'well-earned verandah' after a full day's work. We recently got to sit on one of ours after 15 months of blood, sweat and tears. I feel that the achieving of contentment should be the primary aim of each individual. Through in-depth soul searching, discover what it is that would bring you contentment and steer your life in that direction, hopefully without too many sidetracks.

One specific memory has stayed clear in my mind over the years. The warm, comforting feeling of all being right with my world as I prepared the evening meal in a country kitchen warmed by the earthiness of a wood stove, my husband and children safe and happy around me. The peace of mind and soothing, serene lifestyle that is Pam's is something for all of us to envy and to strive for. God bless you and yours, Pam.

Lyn Sheppard,

'Wallaroo', Mountain Creek Estate,
TENTERFIELD 2372.



Dear GR,

Thanks GR for the only magazine that doesn't fill my head with consumerist nonsense. Some readers might be interested to read of a **POS-SUM REPELLANT**. Fill an old tin can with a mixture of creosote and moth balls. Wait till the possum goes out for the night and hang the tin in its entrance. The possum will not come back, giving you the chance to block up its entryway. This stuff really stinks so be sure you don't spill it on yourself.

Could any readers with experience of **BUTTERFLY FARMING**, **MUSHROOM FARMING** please write? Also I remember reading that a particular type of goose egg is much sought after for crafts. Which breed is it and how do you sell them?

Lorraine Chamberlain,
The Hill, Lot 149 Wards Rd,
RIPLEY 4306.

Dear Feedback,

I am considering purchasing some small acreage and need to become informed about **MULTIPLE OCCUPANCY**. The property would probably be shared by two or three friends and we would each build our own home. What are the pros and cons as well as the resale viability? Any information would be appreciated.

Deanna Zaak,

C/- Post Office, BACCHUS MARSH 3340.

Dear GRs,

On reading Gr 108 I felt sympathy for Carole Hobbs of Innot Hot Springs. Planting an artificial **GARDEN IN A HOT DRY CLIMATE** is one way of overcoming the frustration and heartache. I, too, lived in a similar region to Carole and, even on town water, found the experience disheartening. I vowed never to live in a hot dry place again!

Since moving however, I have gained a better perspective and reassessed my views on dry gardening. Whilst it is potentially wetter where I now live, there are still dry spells, especially with recent drought conditions, unusual for this region. Water is vital for everyone, so the first thought for anyone needs to be for water storage which will determine the size of your herds, crops and garden.

For the garden, one or two tanks sited beside the garages and sheds

or positioned where they can be filled from a creek or dam, is the first step to safeguarding your precious plants. Next of course, it has to rain, but failing that you can formulate a plan as to what you will grow when it does. A shadehouse or pergola attached to your house will provide protection for your plants as well as a cooler place to sit and enjoy. Fill this area with as many pots or raised beds as you can afford to water.

If drought affects your area on a regular basis forget planting or trying to maintain a lawn. A small area can be prepared or left bare if you are desperate for a green sward, but don't attempt a front and back footy field. You'll regret it for the rest of your life!

Large garden beds are more maintainable than small or individual plantings. Raise your chosen area(s) by top dressing, composting and manuring. Choose natives to your region that are still surviving in other peoples' gardens and plant a large grouping, even if it's only of the one species. After the plants have established you can then add different varieties and groundcovers to vary colours and textures. Don't forget to mulch, use anything and everything suitable to lay on top of your garden bed to conserve that precious moisture.

I found the best success with shaded and raised gardens. Raising the soil level is good practice even in wetter areas. The more friable and enriched soil keeps the subsoil damper and provides a better start for your plants as well as improving the structure of the soil. Fruit trees especially enjoy being planted in a raised bed, the soil will settle and level out after a year or two, but the initial growing period will have been catered for.

I hope that some of these ideas help new gardeners in dry conditions and give new enthusiasm to frustrated green fingers. It is often wiser to sit back and study your landscape for a while so that you can learn to work with its eccentricities instead of fighting against them.

Eco,

'Joybrook', M/S, RAVENSHOE 4872.

Dear GR Readers,

We have been reading GR for some time now, it is such an informative and helpful magazine with fantastic recipes and hints for low income people. I wonder if anyone out there could tell me how I could make a **FOOD DEHYDRATOR** as the shop bought ones are rather expensive? Has anyone got any recipes for fruit or vegetable wines? We would also like to thank Dianne R for her helpful washing hint of grated soap and washing soda in GR 91. My washing has never ever been whiter or brighter, especially the whites, thanks. We have used a lot of recipes and hints from GR over the years. Keep up the good work GRs.

Jenny & Chris Feigl,

C/- Post Office, DODGES FERRY 7173.

GR101 has instructions for a food dehydrator you can make yourself. Also in GR 101 are fruit wines, in 102 vegetable wines, and in 103 herb and flower wines.



Dear GR,

Many many thanks and good wishes to you for your effort to raise awake the down-to-earth people and giving them energy, knowledge and courage for the benefit of humanity.

By reading your magazines I am very grateful to you. If anybody of any nationality wants to help us in **FARMING AND AQUACULTURE** I invite them to Gopal pur (on-sea) Dt Ganjam, Orissa, India. We have a farm near a river. We have taro, big wells and one big pond fitted with a 2.5 hp electric pump. We want to start a community basis of life based on the aspect of yogic life. At the same time we have a plan in the future to start a centre for the women and child development of South Orissa.

So if anybody wants to live a yogic life and at the same time help the needy and poor people they are invited with great pleasure.

Sri Rama Kanta Behera

c/- Sri Gura Nath Behera,

Haripur Po-Gopal (on sea)

Dt Ganjam pin 761002, Orissa, INDIA.

FEEDBACK LINK-UP FEEDBACK

Dear GR Readers,

Hi. My wife and I and our five children are seeking to move to the Western Australian township of KUNUNURRA. We currently live in the Hunter Valley region of NSW. Due to health reasons and the extreme desire to get back in touch with the earth we hope to move in early December this year.

We are seeking to become as self-sufficient as possible and our plans include building a self-sustaining home/business with as little impact to the environment as possible.

Anyone with any information regarding straw bale housing, solar power, bio-chem systems, agroforestry, herbs (medicinal/Asian) who would be willing to part with some of their knowledge and experiences we would love to hear from them.

Also, we will be looking for accommodation (rental) for approximately six months (till we purchase our own land). We are willing to caretake properties and/or work for rent. I have qualifications as a tradesman boilermaker, landscape gardener, mill sawyer and labourer, fisherman and cook. My greatest passion is gardening and this where we hope to concentrate.

If there is anyone who would like to contact us we will respond to all letters and calls immediately. Hope to hear from you all soon.

Glen & Joanne Hayes,
3 Coorell Close, RAYMOND TERRACE 2324.
Ph: 049-871-570.



Standing in front of a bed of giant tomato plants, Glen Hayes displays a single huge red onion.

Dear Sir,

Is there anyone who has a FREEZER THAT WORKS ON GAS, as the only one we can find has been discontinued. We would be interested in buying a second-hand one, or in any information anyone can give on where we can find one. We are planning to move into our new solar powered house soon, so we need help!

Mrs J McRae,
C/- PO, COLES BAY 7215.

Dear Readers,

We are about to buy a van and embark on the vision quest for land. We are focusing on the south-east corner of New South Wales or north-east

Victoria. We are keen organic gardeners and wish to find a suitable 20-30 acres with a comfortable house and reasonable facilities. We can afford up to \$100,000. If anyone knows of a good block for sale or an area where like-minded people are living, could you please let us know.

Questions: Are there any markets in the area where we could sell our produce or handcrafts? How on earth do people **MANAGE FINANCIALLY** once they have given up paid work? We will have very little money left after buying land and while we are both teachers, our background is in Aboriginal education, so I don't imagine finding lots of employment prospects. I have faith that we will manage somehow but any hints would be very welcome.



Julle McLean,
PO Box 3761, ALICE SPRINGS 0870.

Dear GR Readers,

I am soon to take a break from work and plan to spend some time in retreat, regenerating in a peaceful place. I would appreciate any recommendations in regard to **HOSPITABLE, HOLISTIC ENVIRONMENTS** where one can take stock and re-evaluate life! Also, I would appreciate a contact address/phone number for 'Willing Workers On Organic Farms'.

J Duncan,
C/- 1 Orion Crt, SPRINGVALE SOUTH 3172.

The address for WWOOF is: Lionel Pollard, Mt Murrindal Reserve, Buchan 3885.

Dear Grass Roots,

Since I last wrote about the **DARLING DOWNS NATURAL GROWER GROUP**, we have changed venues. I'm sorry if anyone turned up at our old venue. The new one is at Legacy Hall, Water St, (off Herries St, near the railway line) Toowoomba. We meet the first Wednesday of each month at 7.30 pm (not December or January), and everyone, member or not, is welcome to attend.

Thanks to everyone who contacted me. The lady from Gayndah who contacted me about coloured sheep - I'm sorry I lost your address, but the answer is that no one in the club has coloured sheep or can provide the wool you were after.

Finally (in case anyone wondered how someone from Crows Nest in NSW was part of a club in Toowoomba), the gremlins must have been at work - I'm from Crows Nest in Queensland. It's a great little town, but has been struggling with the last years of drought. This year, so far, has been good for rain - we are keeping our fingers crossed for the rest.

Clare Staines,
'Orion' MS 26, CROWS NEST 4355.

Dear Grass Roots,

I'm hoping you can help me to link up with a GR type family or single person who would like to CARETAKE 10 acres of wonderful land down in the Derwent Valley of Tasmania. I need a caretaker (urgently) who would be happy to call my little plot of paradise their home for the next five years or so. Part furnished cabin, septic, spring water, phone, beautiful views to Mt Wellington, 40 minutes to Hobart, 15 minutes to New Norfolk, no electricity but small generator on site. If this lifestyle sounds like you and you want to become self-sufficient, please contact me on 079-577-505, or write.

Ann Williams-Fitzgerald,
54 Wellington St, MACKAY 4740.

Dear Readers,

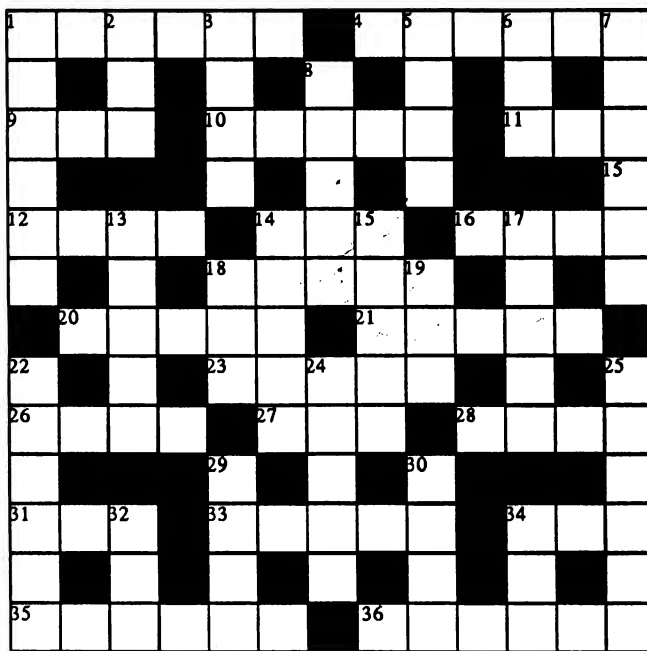
Can any reader help us? We are being driven crazy by **MINER BIRDS** flying into our windows. They also perch on the window ledges and their droppings are piling up in the sills daily and splashing down the western red cedar, taking out the colour. We have tried all sorts of distractions, but now live with all but the family areas covered with shade cloth! We have tried all the experts and they say if we can find any solution please let them know.

Pamela Thompson,
'Yarrimbah', RMB 2915, NUMURKAH 3636.

CRYPTIC GRASSWORD

by M Riley, Tanjil South, Vic.

- Across
1. Barely seen (6).
 4. Obstructs city buildings (6).
 9. We'll certainly not be in Townsville (3).
 10. Cash records (5).
 11. Back away to drink with companion (3).
 12. In crease in rear (4).
 14. Three points to stitch (3).
 16. Care for a small portion of land (4).
 18. Weird peer I encountered inside (5).
 20. A growth of corn (5).
 21. Nails for a slow mover (5).
 23. Paged changes and yawned (5).
 26. Decorated for keeping cool (4).
 27. Ron goes back for conjunction (3).
 28. Ache for everyone (4).
 31. Pastry in pieces (3).
 33. Moreover he's in the crowd (5).
 34. Infantry man inside the cooler (3).
 35. Sadder for tears (6).
 36. Locks in benefits (6).
- Down
1. Card game on ship (6).
 2. Fish caught in the wheel (3).
 3. Whereabouts contested (4).
 5. Not the first to survive (4).
 6. Goes on ahead to represent his country (3).
 7. Lasted to become seasoned (6).
 8. Pilot for the beast (5).
 13. Figure it's out of proportion (5).
 14. Danes make this car (5).
 15. We sir, become more knowledgeable (5).
 17. Crockery from the Orient (5).
 18. Change Reg for unit of work (3).
 19. Den comes to final (3).
 22. No buttonholes at this gathering (6).



24. Sends letter to the Poles? (5).
25. Risk opportunity (6).
29. This metal is in the forefront (4).
30. Just a light colour (4).
32. Sightseer (3).
34. Enjoyable, could be refund when this is in the red (3).

Solution on page 66.

QUICK- SPIN WOOL



Scoured and carded natural coloured and white wool tops. Plain dyed and blended shades of 22 micron merino blended with cashmere; angora rabbit; camel, kid mohair; alpaca; flax; kid mohair/silk; kid mohair/silk/alpaca; alpaca/silk/camel/kid mohair.

All in delightful colour ranges.

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Earth palette, Landscapes dyes for natural fibres.
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QUICK-SPIN WOOL,
Dept GR,
RMB 1215, Shelford Rd, Meredith 3333.
Ph/fax: 052-868-224.

Need a water tank??

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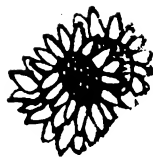
You can easily build a strong, low cost tank with ferrocement. No special skills needed. Revolutionary new method makes it really easy, we show you every detail. Do it in easy stages. 5,000 or 20,000 litres. Also learn how to make low cost diverters to keep the muck out of your existing tanks. Worth the price of the video just for that valuable info. Clean water for everyone!

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U-Do-It Videos, Box 727G, Maleny, Q, 4552



Kids Pages

A SUNFLOWER HOUSE

You can build your own cubby house that will grow as the spring changes into summer, and will make a cool, leafy place to play.

What you need:

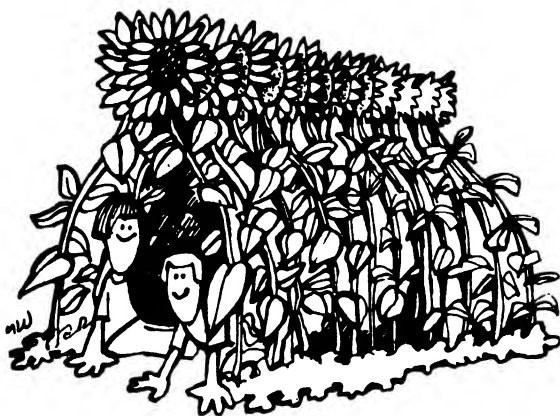
- a sunny place in the garden that you can use until winter
- about 26 tall-growing sunflower seeds.

What to do:

Plant two rows of sunflower seeds, with about twelve seeds in each row, close together, with about a metre between rows. Plant two seeds as the back wall, and leave the front open as the door. Water them well and watch them grow.

When the stalks grow to about 1½ metres tall, pull together the heads of the plants standing opposite each other and tie them with string to form a roof.

How do you furnish such a special house? Cut long grass to dry for beds, collect flat rocks and wood for chairs and a table, find leaves and seed pods for cups and plates. Later in autumn, the sunflowers will provide brown seeds to keep for next year's cubby house and a healthy snack as well.



THE GREAT GR JOKE COMPETITION

We had such an overwhelming response to our Home Alone competition that we thought we would challenge you to again put pencil to paper to send us your funniest jokes. The ones that make the GR staff laugh loudest (and are suitable for publication!) will win the sender a book. Send your jokes to The Great GR Joke Competition, PO Box 242, EUROA 3666. We are preparing our funny bones in readiness.

HA! HA!

HA! HA!

JOKES

HA! HA!

HA! HA!

Q. Why did the frog stop in the middle of the road?
A. To visit his flatmate.

Q. How many lions can fit in an empty cage?
A. One, then the cage isn't empty.

Sent in by Bonnie Parker.

BOOK REVIEW



Reference books for School Projects

Two series of information books would be a very useful addition to the home library, particularly when there are school projects to do. The *Discoveries* series, published by Allen & Unwin as Little Ark Books, includes the titles *Volcanoes & Earthquakes*, *Native Americans*, *Flight, Under the Sea* and *Dangerous Animals*. These books are full of interesting information and full colour pictures with a fold-out poster in the middle of each book. The other series is *Pockets* published by Reader's Digest, and as the series name indicates, the books are pocket sized. Titles include: *Birds*, *Rocks & Minerals*, *Dinosaurs*, *Buildings*, *Trees*, *Insects*, *Inventions*, *Ancient Rome*, *Cats*, *Horses*, *Space Facts* and *Earth Facts*. Pockets may be small in size, but they are packed with essential facts and great pictures.

The *Discoveries* series titles are \$19.95 each, Allen & Unwin publishers. Ph: 02-901-4088. *Pockets* titles are \$9.95 each, Hodder Headline Australia. Ph: 02-638-5299.

COOKERY CORNER

PACK A NATURAL FOODS PICNIC

Spring is a great time to pack a picnic lunch and enjoy it outside in your garden or to take on a bicycle ride to the park or your favourite picnic spot. Try these foods that are natural and delicious.

- Carrot and celery sticks with a dip.
- One-egg omelettes rolled into sausage shapes.
- Foil twists of nuts or raisins.
- Small fruit pies with pastry initials.
- Snack Packs.

- 1 cup puffed wheat
- ½ cup sultanas
- ½ cup dried apple rings, chopped
- ½ cup pumpkin seeds
- ½ cup peanuts

Mix all ingredients together. Pack into six small plastic bags and seal with twist ties or rubber bands.

Recipe is from *A Healthy Start for Kids* by Susan Thompson, published by Simon & Schuster. Ph: 02-417-4363.

PINWHEELS

by Sue James, Warrnambool, Vic.

When I was a child, our agricultural show was an annual springtime event. We would save our pocket money to buy a colourful pinwheel, that we attached to our bikes to turn in the breeze while we rode. Here are the instructions to make your own pinwheel from recycled materials. I hope you have as much fun with it as I did when I was your age.

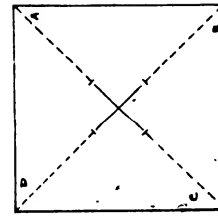
What you need:

- an empty plastic milk or juice container
- scissors
- a flat headed nail
- hammer
- stick, 50-80 cm long

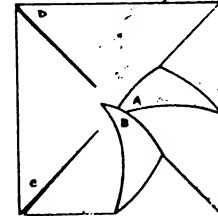
What to do:

Cut a square from one side of the plastic container and rule lines between opposite corners so you have a big X and four triangular sections.

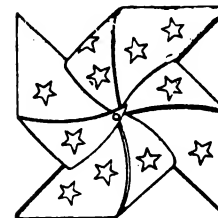
Now cut along the lines to within a short distance of the centre. Next, fold over every second point to meet in the middle and punch a hole in the centre with a nail – to go through all of the corners and the centre of the plastic – and then hammer the nail into one end of the stick. The nail should be long enough to have a space between the stick and the pinwheel to allow it to spin. It will twirl in the breeze and when you run with it, or you can place it in the vegie garden to scare away the birds.



Rule lines between opposite corners.



Fold each corner into the centre.



Decorate the pinwheel with paint or stickers.

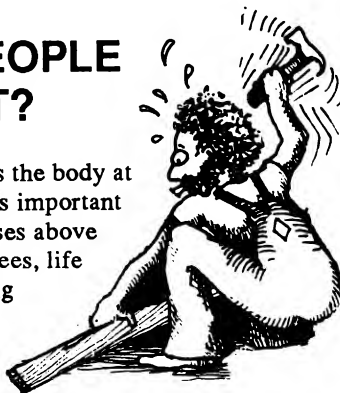
WHY DO PEOPLE SWEAT?

Sweating, or perspiring, keeps the body at a constant temperature. This is important because if that temperature rises above 37°C by more than a few degrees, life could be endangered. Sweating allows the body to cool off. Sweat glands produce water that evaporates on the skin; this transfers the heat from blood vessels in the skin to the surrounding air.

Sweating can also be produced by strong emotions like surprise or tension. This sweating occurs mainly in the palms, the armpits and the soles of your feet. This makes it easier to grasp small objects or to walk a narrow path, skills essential to the survival of the early humans.

So next time you break out in a nervous sweat, think about how useful it was to your ancestors!

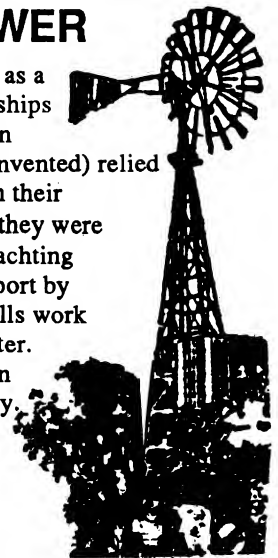
From *Human Body*, Time-Life Books.



WIND POWER

The power of the wind can be used as a source of energy. Old-time sailing ships (used before steam engines and then internal combustion engines were invented) relied on the wind to enable them to reach their destinations. If there was no wind, they were 'becalmed' and just had to wait. Yachting enthusiasts today still enjoy their sport by courtesy of the wind. Farm windmills work at very low speeds for pumping water. High speed rotors are a very modern windmill used to generate electricity. You may have seen huge Dutch windmills that were (and occasionally still are) used for grinding grain and for pumping water off low-lying land.

Wind power is clean and free, but there are reasons it is not more widely used: the wind does not always blow and it blows at varying speeds, so wind energy needs to be stored (usually in large batteries) which is expensive to do. It would take many large windmills to supply enough energy for a town. Windmills are expensive to build and erect as they need to be strong enough to withstand powerful gusts of wind and the vibration as the blades rotate.



Answers to Cat Quiz:

1. A clowder.
2. Garfield.
3. Four or five.
4. T S Eliot's *Old Possum's Book of Practical Cats*.
5. The Cheshire Cat in *Alice in Wonderland*.

A CAT QUIZ

How many feline questions can you get right?

1. What do you call a group of cats?
2. Name the cartoon cat who loves lasagna and hates Mondays.
3. When drinking, how many laps does a cat take before it actually swallows?
4. The stage show *Cats* is based on what book?
5. Which cat's grin was the first thing to appear and the last thing to vanish?

While the Billy Boils

We're sure many reader will be interested in the butter and salt substitutes as healthy alternatives. The recipes are simple yet elegant; suitable for family meals or to serve when entertaining. Those cooks amongst us who are also gardeners will have the main ingredients fresh from the garden, or in storage from last season. Healthy eating.

HEALTHY SUBSTITUTES

I've been using both of these substitutes for years. They were given to me by another health conscious friend and I thought other readers would be interested in trying them. (Do hope they didn't originally come from GR!)

Salt-Free Seasoning

- 3 tsp dried basil
- 2 tsp celery seed
- 2 tsp dried sage
- 2 tsp dried savoury
- 1 tsp cumin seed
- 1 tsp dried marjoram
- 1 tsp dried sage

Powder all ingredients in a mortar and pestle. Mix well. Store in a cool dark place in an airtight container.

Butter/Margarine Substitute

- ½ cup water
- ½ cup olive oil
- 125 g copha or coconut oil
- 1 tsp liquid lecithin
- ½ cup water extra

Melt copha over gentle heat. Place all ingredients in blender. Mix well on high speed. If too thick, add extra water and blend again. Store in covered container in fridge.

Marianne James, Nambour.

CELERY AND POTATO SOUP

- 1 tbsp olive oil
- 1 clove garlic
- 2 onions
- 1 bunch celery
- 1 large potato
- 1 litre vegetable stock
- 1 tbsp chopped parsley
- salt and pepper, optional

Dice onion and celery. Peel and dice potato. Finely chop garlic. Heat the oil in a frying pan and cook onions and garlic for five minutes. Add celery, stir well and cook for ten minutes longer.

Add the potatoes, vegetable stock and parsley. Simmer until potatoes are tender. More stock may need to be added. Cool a little. Purée the soup in a blender until smooth. Add salt and pepper, if desired. Reheat before serving. Serve with a little extra chopped parsley on top.

Max Williamson, Geelong.

ORANGE TROUT

- 4 pieces ocean trout fillet
- 2 oranges
- 1 tbsp unsalted butter
- ½ cup orange juice

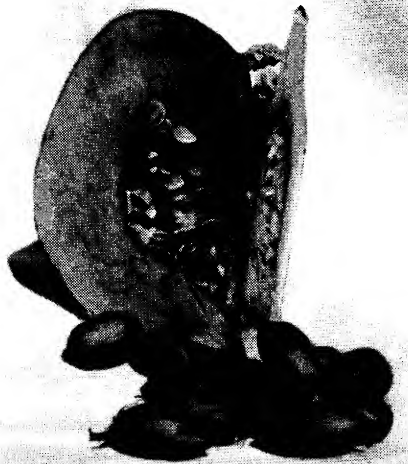
Thinly slice the oranges. Line a baking dish with enough foil to fold back over fish. Oil foil sparingly. Place a layer of orange slices on foil with trout fillets on top. Dot with butter. Pour orange juice over. Place one or two orange slices on each piece of fish. Fold foil over and seal. Bake in moderate oven for about 15 minutes, longer for thicker fish. Serve each fillet with the cooked sliced orange from on top of it, and orange mayonnaise.

Orange Mayonnaise

- 2 tbsp orange juice
- 1 tbsp French mustard
- ¾ cup light olive oil

Combine egg, juice and mustard in a blender. While it is running, add oil in a slow steady stream until mixture is of mayonnaise consistency.

Lucinda Webster, Gosford.



SAVOURY STIR-FRY ASPARAGUS

- 500 g asparagus
- 2 tbsp low-salt soy sauce
- 1½ tbsp finely chopped ginger
- 1 garlic clove
- 1½ tbsp sesame oil
- 1 tbsp sesame seeds

Wash, dry and diagonally cut asparagus into bite-size segments. Finely chop garlic. Combine soy sauce, ginger and garlic and set aside. Heat the oil in a large frying pan over medium heat. Add asparagus and soy mixture. Cook until just tender. Stir in sesame seeds. Serve immediately.

Colin Franklin.

PUMPKIN AND PECAN PIE

Pastry

- 3 tbsp butter
- 1 tbsp tahini
- 1½ cups wholemeal flour
- 1-2 cups cold water

Rub butter and tahini into flour. Mix with water to make a stiff dough. Roll out dough and line a 24 cm pie dish. Bake about 12 minutes at 200°C.

Filling

- 1 cup pecans
- 1 onion
- 1 tbsp olive oil
- 3 eggs
- ½ cup milk or soy milk
- 2 cups cooked mashed pumpkin
- ½ tsp finely cut dill leaves
- ½ tsp freshly grated nutmeg
- 1 cup alfalfa sprouts

Chop onion and pecans. Lightly fry them in oil. Set aside. Beat eggs, add milk, dill and nutmeg. Cook over moderate heat on hot plate till thick. Add pecan and onion mixture and sprouts. Place into pastry and heat in moderate oven 15-20 minutes before serving. Serve with a green salad.

Brooke Stevens, Mulgrave.

APRICOT AMBROSIA

- 500g ripe fresh apricots
- 1 tbsp apricot juice
- 3 tbsp unsweetened apple juice
- 1½ cups ricotta cheese
- extra apricots to garnish

Wash, stone and halve apricots. Whip cheese and juices together. Fold apricots into this mixture. Chill several hours before serving. Garnish with thinly sliced apricot.

Julie Forrester, Newcastle.

OLD CHRISTMAS CAKE RECIPES

Inspiration for the early birds

by Pam Cole, Tuncurry, NSW.



I have a recipe book with the imposing title of: *Cooking Book of Good and Tried Receipts*, compiled for the Women's Missionary Association of the Presbyterian Church of New South Wales. This book was used by my great grandma in the early 1920s, handed on to her daughter to use as a young wife in 1930, then in recent years to me, to whom it is a fascinating treasure. Household advice, cookery hints, and the amazingly lavish recipes of 1920, many simply listing ingredients with no instructions as it was common for quite ordinary folk to leave that sort of thing to 'Cook'; or else it was taken for granted that the Lady of the House was herself skilled in the kitchen arts, else why would the Man of the House have bothered to propose marriage?

Just as intriguing are the many handwritten or cut-out recipes and items in between the pages: economy hints and recipes from the depression days of the 1930s, wartime food-rationing ones of the 1940s, and even a few 1950s clippings referring to new wonder ingredients such as cake mix and instant pudding!

RECIPES

As a contrast in styles let me give you some Christmas recipes. Recalling the optimistic whizz-bang technology view of life depicted on post-war Christmas cards (Santa on a space rocket heading for the rosy clouds labelled The Future was one.), we decided to title this one:

Futuristic Fifties Fruit Cake

A label torn from a food packet proclaims that one packet of dried fruit mix plus one packet of instant pastry mix, beaten with two eggs, a cup of sugar and one or two cups of water, results in a delicious fruit cake for the festive season.

Wartime Austerity Cake

This is on a cutting from the magazine

Woman, dated December 1943. With food rationing in force, the 'shortening' mentioned was often clarified dripping and the treacle helped out as an egg substitute.

3 dsp shortening
1 tbsp treacle
½ cup raisins
1 cup flour
½ tsp bicarbonate of soda
2 tbsp sugar
1 egg
½ cup mixed peel
1 tsp ground ginger
½ cup milk

Cream shortening and sugar well together. Mix treacle and well beaten egg and add. Gradually add the mixed fruit and spice alternately with the well-sifted flour and ginger. Dissolve the soda in milk and blend all thoroughly. Bake in a moderately hot oven for 1½ hours.

In the depression years between two world wars we read of ingenious efforts to produce something good at Christmas, often simply the addition of some hard-won sultanas or currants to a bush damper, or sometimes the old Bushman's Brownie recipe or an eggless Soda Cake served the purpose.

Brownie (source unknown)

Use four cups flour, one cup each sugar, dripping, currants or raisins, one teaspoon each of baking soda, cream of tartar, spice and cinnamon. Rub dripping into flour, in which the other dry ingredients have been sifted, add sugar and fruit and sufficient milk or water to mix.

Soda Cake (no eggs)

Mix with two cups flour two good tablespoons butter, dripping, or half-butter and half-dripping, one cup raisins, one cup sugar, half a teaspoon each of soda, ground cloves and nutmeg, add one generous dessertspoon vinegar and one cup

milk, or powdered milk and water.

And now to the more luxurious and laborious efforts offered on the pages of the 1920 book.

Christmas Cake

5 cups flour
1 cup butter
1 cup cream
1 cup treacle
1 cup moist sugar
2 eggs
½ oz (15 g) powdered ginger
½ lb (250 g) raisins
1 tsp carbonate soda
(Use teacups)

Stone the raisins and cut them into small pieces. Sift the flour and be sure it is quite dry. Warm the butter, if necessary, so as to melt it, but not into oil. Put the flour into a basin, add to it the sugar, ginger and raisins. When these are well mixed stir in the butter, cream, treacle, and egg (previously well whisked) and beat the mixture for 10 minutes. Carefully break all lumps in the soda and mix it thoroughly with the dough. Well butter a mould or cake tin and pour in the mixture. Place it at once in a moderate oven and bake 1¼ to 2¼ hours.

So there! And all by hand too, usually baked in a wood-fired oven!

Rich Cake

1¼ lb (625 g) flour
1 lb (500 g) sugar
1 lb (500 g) butter
2½ lbs (1.13 kg) fruit
9 eggs
peel and essence to taste
1 tsp baking powder

Cream the butter and sugar with the hand. Beat the whites and yolks separately, then together, and then add to the butter and sugar, then the flour and powder, and last the fruit, peel and essence. Bake in a moderate oven.



Rich indeed . . . but the next one was titled:

Very Rich (Irish) Cake

- 2 lbs (1 kg) flour
- 1¼ lbs (600 g) butter
- 1¼ lbs (600 g) brown sugar
- ¼ lb (125 g) citron
- 2½ lbs (1.13 kg) currants
- 18 (!) eggs

Warm the butter and beat it to a cream, break in the eggs by degrees with the fruit and sugar. Add the flour last. Keep beating the same way, and do not take out the hand until thoroughly mixed. Bake about three hours.

Phew! No wonder the 'Cook' of those

days was usually depicted as a rather hefty lady . . . she'd need to be!

Footnotes: a glance at a conversion table shows that a pound often abbreviated as 'lb', from the Latin word for that weight (Libra), is equal to 454 grams.

An 'oz' meant an ounce, the sixteenth part of a pound, and is equal to 28 grams.

And, don't be insulted, but most of you are not my age, so: 'dripping' meant fat poured out of the roasting pan after cooking the Sunday roast beef or leg of mutton, collected in a container ranging from posh enamel ones with strainer to the more usual jam tin or treacle tin. Everyone had a 'dripping tin'. Dripping could then be clarified to whiten and remove the meaty taste. This was done by boiling it up a few times in water and ladling off the rising scum, then straining and allowing the fat to set. The addition of vinegar seemed to help with the strong taste.

OOPS!

Two of our writers from GR 109 have recently contacted us regarding mistakes or oversights in their articles.

With regard to 'Knit Your Own Socks For Winter' Maini Ramstrom wrote: 'You left two important lines out of the article. In the middle column of the page, after the sentence – Do this until you have no sts left on the side needles, only on the middle needle. – should be added – Take 2 needles and now pick up sts from the sides of the square that you knitted before. Try to keep the amount the same on both needles.'

Louise Healy wrote of her 'Natural Medicine Chest' article: 'Regarding the use of arnica tincture in the bruise lotion, I must warn people not to apply to broken skin as some people are very sensitive to it. At the first sign of irritation or dermatitis stop using arnica. I apologise for not including this warning in the article.'

Finally, in Arthur Frith's 'Car Maintenance' article on page 61 of GR 110, the air filter and manifold were incorrectly labelled. Just switch the labels over. It shows how much some of us in the office have needed such a basic practical series. We hope it's been of benefit to readers also.

CAKE MAKING TIPS

Place a small tin of water in an electric oven to keep a rich fruit cake moist during baking.

Before freezing cake, cut it into serving sizes and wrap each one separately – avoids waste, reduces defrosting time.

Once baked, place fruit cake in an airtight tin with a whole apple to keep it moist.

Before cutting an iced cake, dip the knife blade in boiling water and it will cut cleanly through the cake and icing.

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CUTTING, JOINING AND PUNCHING SHEET METAL

by Kel Connell, East Gosford, NSW.

Galvanised sheet steel can be very useful on farms for making all kinds of containers. Cutting and joining can be a problem, although it's made easier with electrical gadgets or machinery. Many useful items may be produced using simple methods. Sure, modern technology has produced many labour saving machines that manufacture ten times more items for less cost (more profit). So often modern technology conditions the technicians into believing that the modern way is the only way.

Without power, with limited money and time, especially when making just one item, perhaps the old methods are best. There are some basic rules, based on common sense. Cutting and punching holes is mostly a matter of force overcoming resistance. The thicker the metal, the greater the force required to cut it or punch holes in it.

Metal with a thickness less than 3.2 mm ($\frac{1}{8}$ ") is deemed to be sheet metal. Above 3.2 mm thickness it is called steel plate and is the business of boiler-makers.

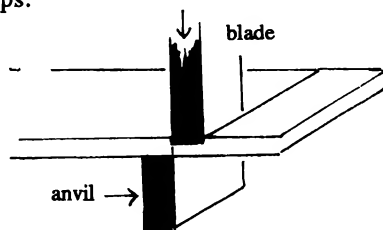
Shearing is probably the most common and efficient method of cutting, with a solid support called the anvil adjacent to the cutting area to support the metal and also resist the vertical down force of the blade, which causes the shear.

COLD CHISEL USE

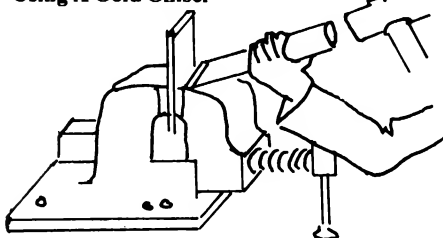
Scissors and tin snips are a good example of a simple shearing device. Small pieces of steel up to 3.2 mm thickness may be shear cut using a vice and chisel as sketched.

Less resistance to chisel cutting actions will occur if the chisel is held at an angle of approximately 45 degrees.

The vice and chisel method is fine for steel pieces that are too thick for tin snips.



Using A Cold Chisel



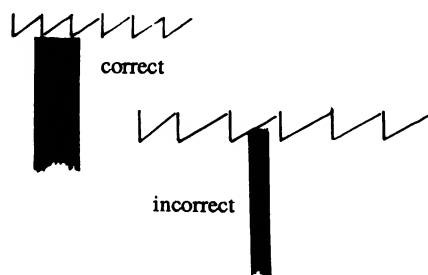
correct

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HACKSAW USE

Choose a blade to suit the thickness of the metal being cut. The distance between two teeth points should be less than the metal's thickness as sketched.

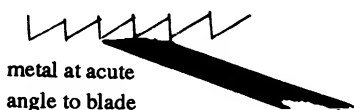
Using A Hacksaw



correct

incorrect

Chisels, hacksaw blades and shears naturally must be harder than the metal they cut. This is done by increasing their carbon content. The carbon increases hardness, but also the cutting metal becomes brittle. Cutting sheet metal with a coarse blade will result in broken teeth on the saw. If using a coarse blade is the only alternative, its efficiency will be improved if the metal to be cut is held at an acute angle to the blade, as sketched.



Cutting Speed

If I recall correctly, this is approximately 26 strokes per minute, maximum. Cutting faster clogs up the cutting teeth, overheats the cutting edges by excess

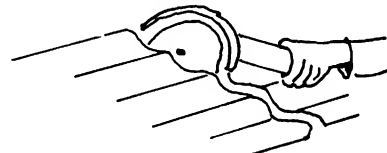
friction, which blunts the teeth. It also makes the operator very tired as well as making him look like a bit of a dill.

Incidentally, the height of your workbench should equal the distance from your elbow to the ground. This ensures that objects held in the vice can be worked on while standing erect. Less back strain, less fatigue.

CUTTING CORRUGATED IRON

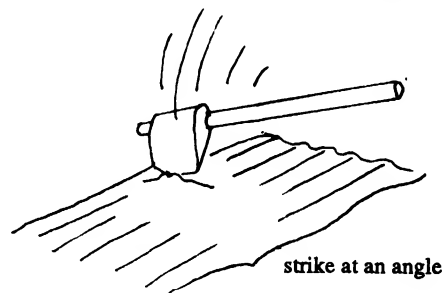
The most accurate and quickest method of cutting corrugated iron sheets in a farm situation would be using an angle grinder with a cutting disc fitted. A smaller 10 cm grinder can be used by cutting into all the high parts then flipping the sheet and cutting from the reverse side.

Using A Small Grinder



For sheet metal and corrugated iron sheet, shear using the back edge of a wood saw as a shear blade. The brace construction should be made of wood to prevent damage to saw teeth. The cutting action is similar to scissors with the sheet iron being moved forward after each cut (see diagram over page).

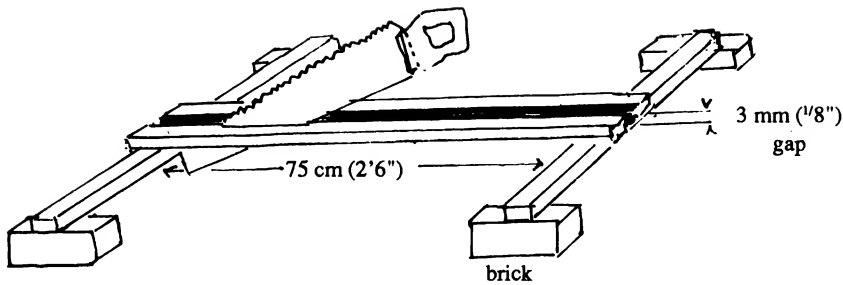
I recall once building a fowl house using an axe to cut the corrugated iron sheet. The cut is obviously ragged, but the ragged edge can be covered by overlapping sheets. An old axe should be used.



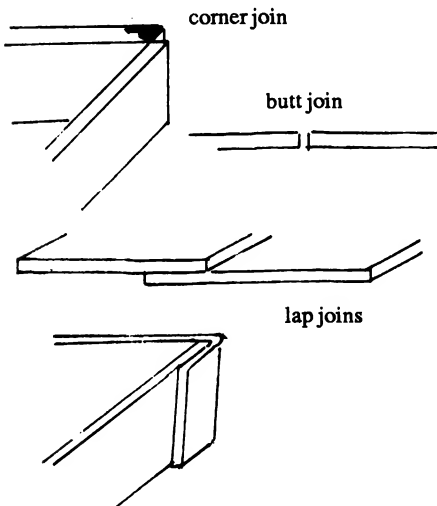
JOINING METHODS

Sheet metal may be joined by soldering, brazing, welding, riveting, screws or bolts. Welding can be done without lapping the metal at the join. All other methods require lap joints.

Using Wood Saw As Shear Blade



Types Of Joins



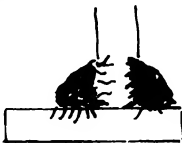
Soldering

This involves low temperature and the solder merely penetrates the surface atoms. Also the solder tends to be brittle so maximum surface contact is necessary. The lapped joint provides greater contact for the solder. If the joint is subject to vibration riveting will be required to assist the soldered joint.

Brazing

This requires a higher temperature, obtained with LPG gas or oxyacetylene. Because of the higher temperature used the metal being joined expands, allowing the brazing alloy to penetrate deep into the grain structure. Brazing is much stronger than soldering. It is also not recommended where vibration occurs as vibration snaps off the alloy roots that penetrate the grains.

vibration snaps the alloy roots



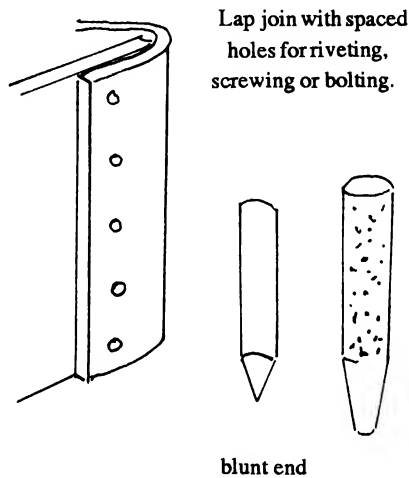
Welding

If done correctly welding should result in a joint that is equal in strength to the metal being joined, watertight and with good vibration resistance. The word weld means 'to fuse'. Heat in excess of the

metal's melting point is required: oxy-acetylene or electric. LPG gas flame is chemically unsuitable for fusion welding, it is used for brazing or heating.

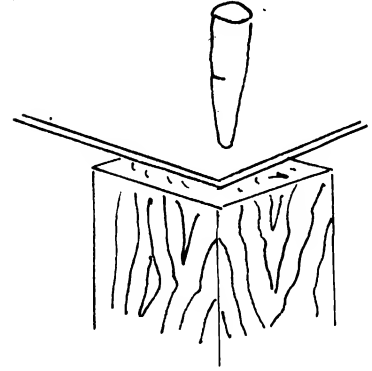
Riveting, Screwing or Bolting

These will require lapped joints with holes suitably spaced. If the holes are to be drilled, the drilling can be done after the metal is folded. Drill the top and bottom holes first and secure them with screws, then drill the rest. This ensures hole alignment. Should electricity or a drill machine be unavailable the holes may be punched using a hammer and a blunt punch. A punch may be made by buying a centre punch and grinding the point flat. It may prove an advantage to punch the holes prior to forming the lap joint.

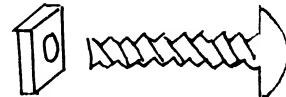


punch holes before forming lap joint

Sheet metal under 2 mm thick, may be punched after marking the holes' positions. Place sheet on wood block with end grain up (a tree stump will do), then punch holes, using a blunt punch and hammer. The blunt punch actually shears the plug out, whereas a pointed punch tears the metal. File burrs off underside of holes, then fold to shape. Handle cut edges carefully, sheet metal cut edges can be very sharp.

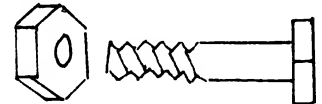


Soft alloy rivets can be beaten using a hammer while the rivet head is supported by a heavy metal 'dolly'. The easy way to go is to use pop rivets and a pop rivet gun; alternatively, bolts and nuts or screws could be used for fixing.



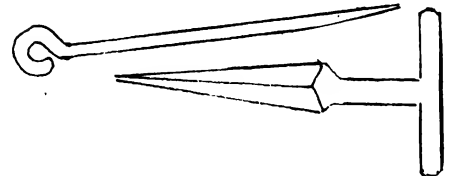
Above: Thread is all the way up to the head of screws.

Below: Bolts have an unthreaded section.



If your sheet metal container is to hold liquid the joints could be sealed with a bitumen base compound. Gutter bolts have a wide head with a screw-driver slot and are convenient to use.

After tightening nuts on screws I prefer to support screw heads with a metal block and hammer the threaded end. This causes expansion and prevents the nut from coming loose.



A scriber may be handy for marking and a reamer for enlarging holes, or use a file.

Go for it – happy farming and successful metal bashing.

HOME WORM FARM

YOUR OWN FERTILISER FACTORY

PART 2

by Graham Roberts, Mt Riverview, NSW.

In the last issue I mentioned some of the good things that worms do for us in our gardens and farms. Now I will suggest a few ways to encourage worms and their friends to do these good things. Quite simply we should treat them as the very welcome guests that they are by providing food, drink, undisturbed shelter, and by not poisoning them.

WORM-FRIENDLY HABITAT

How many times would you rebuild your home in the same place if whenever you rebuilt it, someone came along and knocked it down with you inside? So no-dig gardening is the way to go, with all the organisms in the place that they prefer to be, not where you think they should be. Roots of dead plants should be left where they are and the tops laid on the soil as protection from the weather and as a store of food for the future. Do not walk on the garden beds. The

worms and their friends will do all the ploughing that is necessary.

There is no such thing as a selective poison. Fortunately, most poisons break down in time when exposed to weather and soil organisms, but they can wreak untold havoc on the way. Some of the poison sprayed on plants finds its way to the ground. Poison in plant or animal tissue is taken in by other organisms eating that material, and so on. Most factory-made fertilisers make conditions uncomfortable for living organisms in the soil.

PURPOSE OF HOME WORM FARM

A home worm farm is like any other farm, a place to achieve a particular purpose. Your worm farm could be for any of these purposes:

- A quick and convenient place to dispose of food and other household wastes.
- To convert waste materials into high

grade plant food and soil builder without causing pollution.

- To provide a good supply of fishing bait or food for fish and birds, a supply of liquid fertiliser, an ingredient for making potting and seed raising mixes.
- To convert animal and other wastes to a material that can be spread on grass without fouling that grass for grazing animals or human recreation.
- To make plant foods available for use when required and in a more pleasant form than when produced as messy manure or scraps.
- An alternative to compost turning for those without the strength or time.

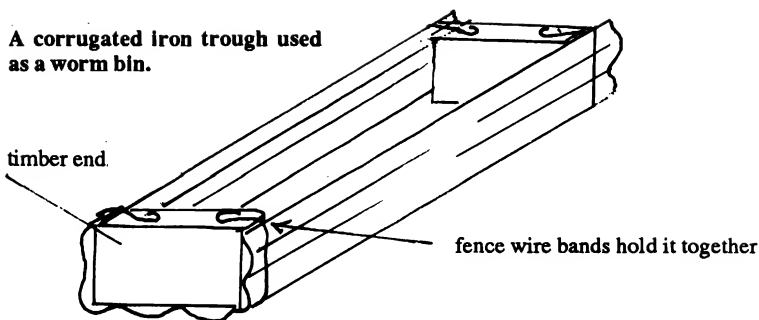
WORM FARM CONTAINERS

The size, shape and location of your worm farm will depend on the purpose for having it: whether you live in a flat, small town house or a farm; if you want to collect the liquid; whether your daily



The homemade timber worm bin showing newspaper-wrapped parcels inside. Buckets contain 50 litres of casts recently 'harvested' from the bin.

A corrugated iron trough used as a worm bin.



inputs are in grams or tonnes. Be imaginative, experiment, don't buy materials if possible, use what you have. Humans are basically lazy so it must be easy to use. Place it next to your garbage bin to remove the temptation of putting scraps in there instead of walking further to the worm farm bin. Tree roots will soon find and suck dry a worm farm bin on the ground, so if you have trees the bin will have to be isolated from the ground in some way, whether by concrete, plastic sheet or whatever.

Craig Guy of Central Victorian Earthworms has developed a windrow system suitable for farmers, it is described in his book.

I will describe four bins that we have found successful.

Rein Worm Factory

First the smallest, the commercially made Rein Worm Factory. It must be in

full shade or indoors. It collects liquids. I suggest using paper parcels and filling each working tray to the top so that the next tray sits on the materials in the lower tray. This will prevent a gap forming between trays as the material shrinks.

Timber With Hinged Lid

The one my wife prefers is made of timber with a hinged lid and a flap at the bottom for extracting casts. It is on concrete because of trees, next to the garbage bin and near the kitchen door. Advantages: good appearance, lid does not fall off, single-hand-operated lid, easy extraction of casts, vermin proof, heat insulated (25 mm thick timber). Disadvantages: does not collect liquids, made of treated pine which I now consider to be a toxic hazard. I am looking for other materials to make one in the same basic design, possibly with liquid collection.

Corrugated Iron

A sheet of corrugated iron bent into a long U-shaped trough and supported off the ground, timber formers at the ends with fence wire around ends to hold it together. With a slight slope and a bucket to catch liquids, it is working well.

Multicompartment

This can be made of timber, plastic or corrugated iron and have two or more compartments. Fill or start using the next compartment when you consider the first to be nearly all casts. Worms move across through the ground or holes provided in walls.

WORM MANURE

Also known as casts, castings and vermicompost. It is alive with beneficial organisms when the worms give it to us and it would be crazy to kill these off by exposure to sun or overdrying. It is like black clay when fresh and crumbles as it dries. Use fresh if possible, or dry slightly for potting mix. It does not harm plants in any way but is too dense to use neat as potting mix, not allowing enough air to the roots. Mix with sand or peat.

Recommended Reading

Earthworms For Gardeners and Fishermen, CSIRO Soils Series.
Earthworms In Australia, David Murphy
Worms Downunder Downunder, Allan Windust
Earthworms a Full Circle, Craig Guy



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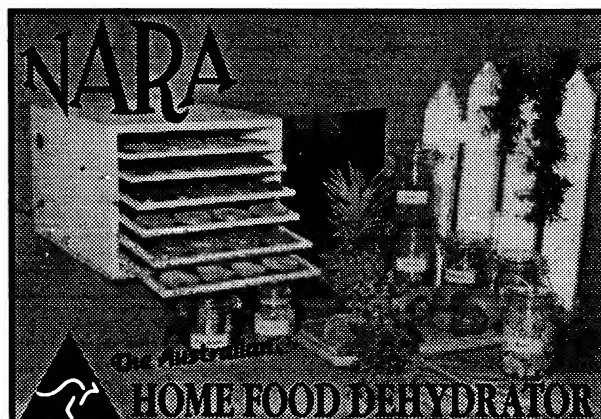
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NOT JUST A BROKEN EGG

by Gaele Murray, Hervey Bay, Qld.

A free range hen will lay about 180 eggs a year. Because many hens are crossbred these days, they will lay both brown and white eggs. The shell is very porous and for this reason eggs are best stored in containers. Every home these days will have recipe books that list hundreds of ways to use eggs for cooking. But what of the fragile shells? Here I will list some of the many ways that shells can be recycled creatively.

Perhaps the cook in the house could put aside the shells instead of including them in the rubbish bag. The number of shells needed would depend on what the creative artist wished to do with them. Wash them first and allow them to dry.

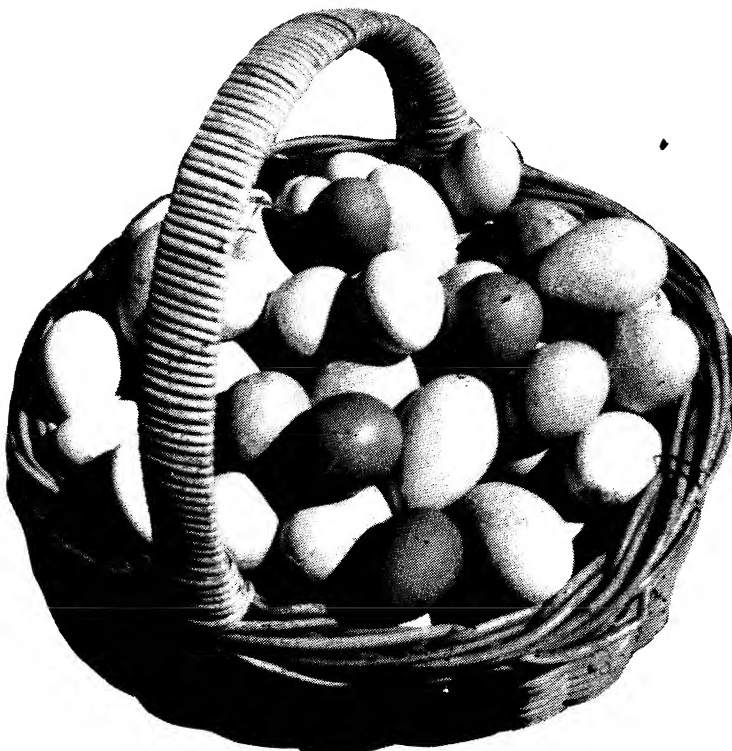
USES FOR EGGSHELLS

General

- For cleaning items such as decanters or narrow vases, add some crushed shells to a little detergent and water, shake well, then rinse in cold water. Let drain and the vase will shine like crystal. Tea leaves or rice could be added to the solution for extra shine.
- To clean obstinate stains from enamel, earthenware and kitchenware: wash, dry and crush shells, mix a little common salt and borax to a paste, add crushed shells and you will have usable clean items for the kitchen again.
- Crushed shells can be added to the compost heap, use a rolling pin for a very fine crush.
- Very finely crushed they could be used in egg timers.
- If you sprinkle crushed shells around carnations they will produce better blooms.
- Crush eggshells, bake them. When cool the shells can be given back to the hens. They will love it.

Craft

- Birthday cards and Christmas cards can be made on a stiff piece of paper or



light cardboard. There are many themes to use in both instances, along with the appropriate words. Either draw them or use cutouts of the scene you want to use: perhaps a Christmas tree, star or balloons. Cover the design with glue, then press on the crushed eggshells. When you've completed it leave to dry. You can then, if you wish, colour paint over the shells with a small brush. Even just the words Happy Christmas or Happy Birthday would be effective.

- If you are feeling more adventurous you could do a dinosaur, but don't make the eggshell crush too small, then it will make for a good effect.

Decorated Eggs

When you think of Easter, you think of eggs. Decorating eggs has a long history — chocolate eggs are quite new. This art form does not need crushed shells.

The easiest way to decorate them, is to boil them in dye. *Do not eat them afterwards.* You can draw faces or patterns on them after they have been dyed. To make a more interesting pattern, use egg white or syrup to stick real flowers or leaves on to the shells.

The method for this is:

- After attaching leaves and flowers, wrap the egg round with pieces of coloured rag and bind everything together with a piece of linen or an old stocking.
- Boil it all for an hour, then take off the rags, flowers and leaves.
- The imprint of the flowers and leaves will be white and the rest of the shell will be coloured.

Certainly there is more to an egg than just eating it. Perhaps these suggestions will be a creative adventure for those who care to fill in their time on a rainy day.

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NATURAL INSULATION

by Moona Nookanba, Robertstown, SA.

Maybe you have an unused/unusable shed, or you are currently working in one, protected from our drastic climate by a thin layer of metal only? In summer it gets hot like a furnace, in winter it is colder than the open. Brrr.

I have moved out of the city to avoid toxins in the air and pollution everywhere. Life in the city was not allowing full creative flow. As an artist, I was also in real need of a permanent studio space, which the double garage with the small house in South Australia's mid north promised to provide for an affordable price.

We moved in after a cold spring and I did my first work in the new studio with open doors for light. That established the need for windows. I got the local handyman to put two in and then the heat came.

My metal shed is supported by timber beams. That gave me hope, because metal is still alien to me, yet I have learned to work with wood. Well, what to do? Insulation makes all the difference, that much I knew. But aware of the nasty properties of the usual stuff I wasn't game enough. To keep expenses to a minimum we were planning to do the work ourselves.

Aussie Wool offered the attainable and natural alternative. We could afford woolbatts for the whole shed and for the ceiling of the house as well. It is easy to

install, you can staple it on, pull it to fit, hold it up, it is lightweight. Although it's dusty, the dust is probably harmless. We got a lot of it in our faces as we covered the roof from underneath. But it worked amazingly; the brain almost sizzled when I was in front, with the head just below the metal roof, whereas underneath the new woolbatts, breathing was easy.

TO INSTALL

Measure the space to be clad, get enough batts of the appropriate quality for your purpose. Different thicknesses with insulation values from R1 to R3 are available. R 2.5 can be hard to staple but is appropriate for ceilings. Cut pieces to size to fit between rafters. Ordinary scissors will do.

In the shed we used chicken wire to hold the bats up under the roof. Ceilings are a two-person job. One to stretch the support, the other to place the precut woolbatts and then start stapling.

We did it by both standing on a work table which enabled us to swap sides and tools freely. Insulating ceilings is effective but quite demanding and dusty.

Walls can easily be clad without assistance. I was using R1.5 batts and stapled them straight onto the timber frame. Initially I tried garden twine as cross-braces, yet that was soon too slack. However, it held the batts strong in the

middle until I came and covered the walls completely with natural hessian. That turned out to be a very satisfactory solution, visually as much as price-wise. I already had the roof of the house in mind and bought a 50 metre roll from the local fabric shop. They gave me a good discount.

Second time around the walls, because I had, so to say, done it before, the hessian went up faster and faster as it was looking better and better.

In the house we used hessian instead of chicken wire, yes it is strong enough. We started off stapling the wool to the ceiling though. In the second load of woolbatts we took R3.0 as R2.5 was not available at the time. We haven't regretted it, as it is staying up even without the additional staples. The thicker the better.

Be wary of the wires in 'electrified' dwellings, best to turn the main switch off while working.

Using the whole width of the fabric gave us two clean edges overlapping. Where it has to be cut, crimping it in is OK, better yet if you have a sewing machine.

With hessian stretched over wool, contours are roundish, a soft ceiling with a yurt-like feel. I love it!

Advantages

All natural materials provide an environment conducive to a healthy body-mind continuum.

The use of chicken wire in the art studio gives a light ceiling, thus overall improved light conditions.

Hessian contains the wool entirely, dust is also contained and fabric is easier to install than plywood, for example.

The use of a sheep product reconciled me somewhat with the sheep farming practised in the area.

What We Used:

Aussie Woolbatts: R 1.5, R 2.5, R 3.0.

household scissors

t 55 staple gun

8mm and 14 mm staples

roll of natural hessian

roll of chicken wire

work table

ladder



Woolbatts in the studio ceiling are contained by chicken wire, the walls are lined with natural hessian.

A VEGIE PATCH FROM SCRATCH

by Mary Horsfall, Longwood East, Vic.

October-November is the main spring planting time for me. I'll wait until the soil is warm and the likelihood of frost is past, usually mid to late October, before planting any spring-summer vegies into the no-dig beds. (The unusually mild weather at present could make this year an exception and tempt me to plant earlier.) Usually I'll have seedlings, which I've grown in punnets in a propagator, hardened off and ready to plant out. To me, planting that first tomato seedling symbolises the start of spring, despite whatever the calendar claimed weeks before.

If you have weeds growing in your no-dig bed, don't worry, this is natural as the material decomposes and weed seeds blow in. Depending on your situation, use one of the following methods to control them, but, whatever you do, get rid of them before they go to seed and compound the problem.

If there are just a few weeds, they'll pull out easily by hand and can be put in the compost, thrown to the chooks, or left on the ground (with the roots exposed) to decompose. A more severe problem can be controlled by covering the lot with more layers of newspaper; sprinkle it with uprooted weeds, hay, or lawn clippings to prevent it from blowing around. The third possibility is to put poultry in a portable enclosure over the area. They will scratch out weeds and pest larvae as well as fertilising as they go.

Remember that this is a time of very vigorous growth so regular (at least monthly) applications of compost or manure will keep vegies growing healthily and producing prolifically.

It is also a time of growth in the insect world so it's a good idea to reread the pest control articles in GRs 108 and 109 for some suggestions. Don't panic as soon as you see a few pests. There will be beneficial insects to eat the problem ones, and plenty of birds with voracious young to feed. If you protect seedlings through their vulnerable initial growth phase, the rest can usually be left to nature to sort out.

VICTORIA

Broad beans planted during winter should be ready to harvest throughout October. Once they have finished, pull out the plants and add them to the com-

post. Save a few of the larger pods, hang them up to dry and, when dry, save the seeds for next year.

Any other residue from harvested winter crops can also go into the compost. Broccoli will keep producing for months if you keep cutting the heads, then the side shoots, before they flower and go to seed. However, if the side shoots are small and you don't have much space, you'll probably prefer to pull the plants out and replace them with something else. Beans are a good choice to go into the spot as they'll replace the nitrogen depleted by the broccoli. If you haven't already planted beans, do so now. Climbing varieties on a trellis or tripod take up little space and will produce for months.

You can still plant peas throughout October, and into November if the weather doesn't become hot too quickly. Plant them in a spot you have removed winter brassicas or leafy crops from. They will need a trellis or some form of support, despite what you might read in some books about planting them close together so they will support each other. I tried that several times. In the first moderate breeze they *all* collapsed to the ground each time.

It is possible to plant members of the brassica family (cabbage, cauliflower, Brussels sprouts, broccoli) at this time of year, but I don't bother as there is too much competition from the cabbage moth grub. I prefer to plant these in autumn and harvest in late winter-early spring when the moth is less active and easier to control.

There are plenty of other possible crops to choose from: tomato, capsicum, lettuce, cucumber, squash, pumpkin, celery, carrot, beetroot, melons, silver beet, most herbs. Basically, any vegies your local nursery has in stock can be planted now, but keep in mind comments made in earlier articles about family preferences and space restrictions. Herbs interplanted with vegies will help to confuse and repel many pests.

Remember to harden seedlings off before planting them and to protect them with fruit tins, or similar, covered with pantyhose or fine mesh onion bags, for the first few weeks.

Finally, don't plant too many of the one thing and have them all ready to



Broad beans will start podding-up here in October, so will need to be staked and tied in readiness.

harvest within a short period of time. Perhaps you can share seedling punnets with neighbours and stagger plantings so you have food to harvest over a longer period.

NORTH QUEENSLAND

by Susan Hands, Innisfail.

We are still harvesting our winter garden, especially tomatoes. A lot of the plants such as lettuce and cabbage will start going to seed by the end of November as the temperatures are rising. Radish will still grow, as will a plant called summer spinach (Yin-choy) which has a very strong taste, usually too strong for children.

Now is the time to put in your summer beans, the climbing snake bean. Plant the seed directly into the ground, usually in a bed that you feel needs 'nitrogen fixing'. Often we plant them alongside our tomatoes as they give some shade to the tomatoes which will be producing well into the new year.

Eggplant, though generally considered a large plant for a no-dig garden, can be planted to produce during the hot weather and, as not a lot else is available, it is probably worth considering. Don't plant it next to your tomatoes as the eggplant is the same family and you are more likely to gain pests by planting families together.

Remember, if you have planted baby squash don't water it at night as this allows mildew to take hold.



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MERRIGALAH STRAW BALE UPDATE

by Leo Newport, Armidale, NSW.

Since my article on straw bale building was published in GR 106 there have been some developments at 'Merrigalah'. We now have four shares of our beautiful 3000 acre property in the New England Tablelands available for purchase at an exceptionally low price (see ad in Grassifieds).

When we have sold and finalised the transfer of these shares in Merrigalah, we plan to offer residential workshop camps, within months of the ownership changes. Our proposed seven-day residential holiday/retreat, workshops (expected to cost around \$250 per head or \$400 per couple) will combine a broad range of experiences into the straw bale building workshop and learning experience. We will include food, reiki, massage, self-realisation programmes (for those who so choose), long horse rides down the mountain trails deep into the hidden valley of the Macleay River where we will camp overnight at our lake.

We have had very very encouraging discussions with our local building inspector about our own proposed straw bale construction. He has advised that our councillors are very progressive and

- are genuinely interested in alternative, sustainable building and living techniques. We have offered to build a small structure (hen house or animal shelter) so they can see how it's done before we make our formal application for the house, an idea which met with a very good response. So I am very optimistic about approval for our straw bale structures. There is a lot of good potential here as we build up to six residences with full council approval.

Good news for all the people who enquired previously is that we now have a comprehensive book available: *Construction In Strawbale*, available for \$41.95 (includes postage), from Leo Newport, PO Box 1299, ARMIDALE 2350.

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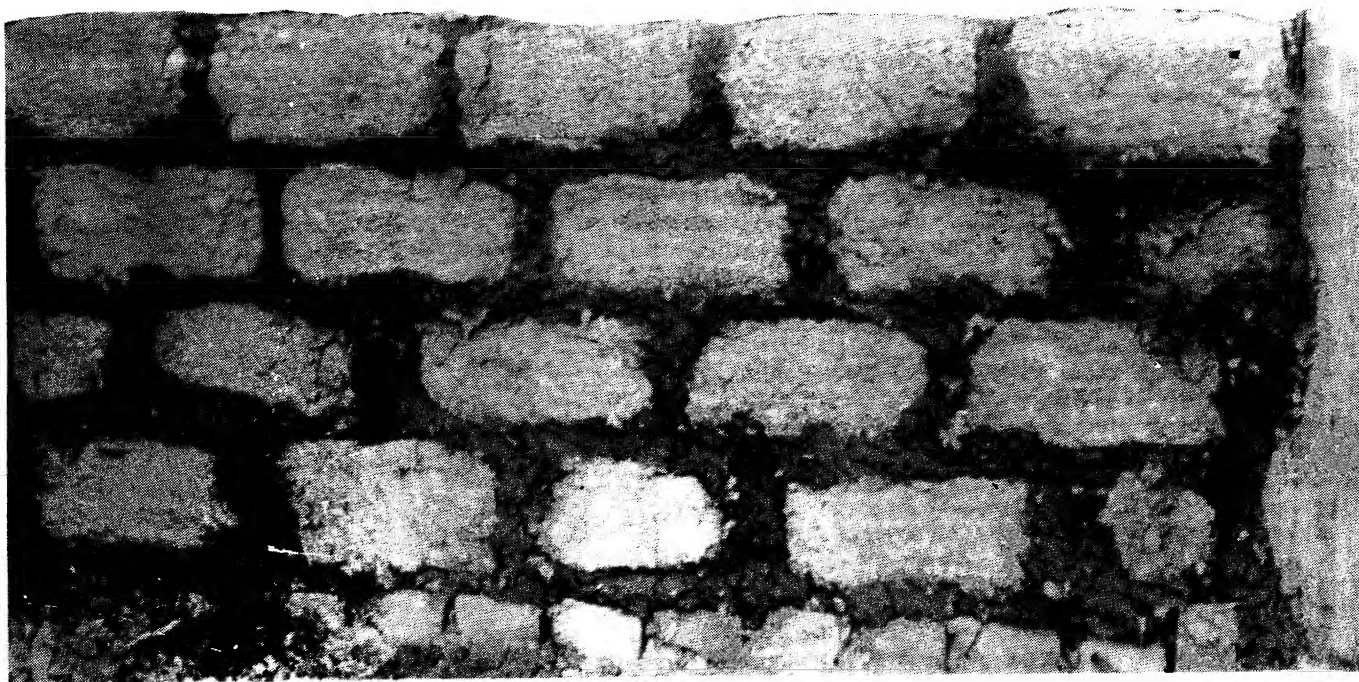
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MOTHS IN THE MUD BRICKS

by Marly Wright, Maryborough, Vic.



Before I attempted to build my own mud brick house, I did a lot of research about everything I would need to know. This meant talking to people who had built, or were building in mud brick, and gaining hands-on experience by helping someone else before starting on my own. There are always a lot of stories to swap, and I love these two.

Mud brick houses seem to fascinate all kinds of people and I am quite used to people coming up to my house and asking questions. I don't mind at all, but some people get a bit annoyed, as did an acquaintance in the local town, but his sense of humour prevailed as he began to tell an enquirer about the hidden hazards of mud bricks.

He told the person that moths lay their eggs in the soil and you couldn't even find them if you sieved every bit of it. So you mix up your mud and make your bricks, leaving them to dry in the wind and the sun. And this is where your problem starts! He told the man that the eggs begin to hatch as the bricks get dry and the caterpillars begin to wriggle around inside the bricks until they create a hollow.

In the meantime you are laying your bricks, unaware of this problem that is developing. He said that people building in mud bricks should do a regular check by tapping all the bricks and lis-

tening for a hollow sound, which is highly suspect. Then he demonstrated this for the listener. If the bricks were already laid in the wall, you should place your ear to each brick, because you could sometimes hear the young moths fluttering around inside creating an even bigger hollow. Again he demonstrated for the listener. Another sure sign that the moths were active, was small piles of 'mud dust' on the floor directly below the brick in question.

He said that you could kill the moths by injecting an insecticide into the suspect bricks with a large syringe, but if that didn't work, you would at least know which wall would fall down first, so that you could move your furniture out of the way! He said the enquirer suddenly became quite depressed and left muttering that he knew there just had to be a 'catch' with mud bricks, and that he was going to build his house out of a more conventional material!

So, if you see someone tapping their mud bricks, or pressing their ear to the walls with a look of total concentration, and a few drums of insecticide nearby, don't fret, this person is only checking for moths!

The next story is about a mud brick builder who managed to get on the wrong side of a local inspector and was told to dig out the neatly filled hole, so that the

drainage pipes could be inspected according to the book. But during the passage of time between digging out and the next visit from the inspector the heavens opened, and there was water everywhere!

Seeing as the hole that had been redug was right inside the mud brick builder's property, he saw no reason to cover it. He knew exactly where it was!

In the meantime, during the night, a man appeared (bottle in hand), who seemed to be having great difficulty staying on the straight path across the road. He veered across the road, and back again, across a lawn, and suddenly vanished!

Come morning, our mud brick builder came out to check as to whether or not to pump the water out of the hole before the inspector arrived. Deciding against it, as it was raining again, he picked up the floating bottle and went inside. Suddenly, an irate inspector came into view saying he had had a complaint from the neighbours that very morning, about this very hole, saying it was dangerous and that a man had fallen into it on his way home. The inspector left without checking the work, with an assurance from the mud brick builder that he would mark the hole. The inspector came back the next day. Sure enough the hole had a warning notice on it: . . . NO SWIMMING.

ROUND THE MARKET PLACE

We hope you enjoy this feature introducing new products relevant to readers' lifestyles and interests.

GLASS ETCHING

For centuries glass etching has been one of the most popular forms of glass decoration. Until now this decorative craft has been limited to industrial areas due to the use of dangerous acids in the etching process. With the introduction of Etchit! products into Australia, the craft of etching is now available to everybody. The product was first put on the market in 1933 (known as B&B Etching Creme and Etchall Miracle Cream), and has been certified with the international health label by the Art and Creative Materials Institute. A starter kit is available to give an introduction to the craft and is price at \$19.95.

Contact: Sean O'Leary, The Melbourne Glass Centre,
PO Box 294, BLACKBURN 3130. Ph: 1800-635-137.

THERMA-JIG

Grass Roots 95 had an article on the Thermo-Jig, a fabric bag that has a layer of polystyrene insulation to enable you to keep cold foods and drinks cold and to act as a slow cooker much the same way as a hay box does. Cheryl Steyn, who sews the Thermo-Jigs on a treadle sewing machine, wrote to us recently to let us know that her products are selling well. The Thermo-Jig prices are unchanged. The maxi (5 litre) is \$40, midi (3 litre) is \$30, mini (2 litre) is \$22.50, small (1 litre) is \$15 and the new baby is \$7.50. She is interested in hearing from people who cook with a Thermo-Jig as she is compiling a recipe and ideas book.

Cheryl also makes Petz Bedz and Draught Excluders and her products are available by mail order from:

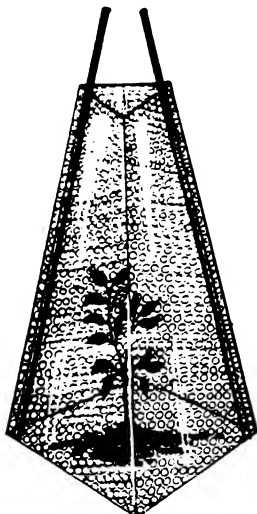
Cheryl Steyne, 10 Wattle Close, YUNGABURRA 4872.
Ph: 070-953-815.

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Munns Lawn Company produces Arid Smartgrass which, they claim, has superior performance over conventional lawn seed. Smartgrasses contain a naturally occurring beneficial fungus known as endophyte which produces a toxin that repels a host of turf insects. With over 85 percent endophyte level, Smartgrass has improved heat tolerance, drought tolerance, is faster to establish and has better root development. It will grow from full sun areas to 80 percent shade and is ideal to sow in Autumn.

Available from garden centres, nurseries and hardware stores.

Enquiries to: Munns Lawn Co Pty Ltd, 700 South Rd,
GLANDORE 5037. Ph: 08-297-2722. Fax: 08-297-5867.



SOLAR PLANT GUARDS

After reading the book *Solar Gardening* (see Recent Releases GR 110), we were interested to discover two Australian made plant guards that act like mini hot houses.

Hydro Nurture is a re-useable plastic sleeve that has a circular series of tube compartments which are filled with water. This makes it self-standing and wind resistant and, as the trapped water heats during the day, it then releases that heat during the evening to provide insulation for the plant against frosts and cold weather down to minus nine degrees Celsius.

Suncell Plant Guards are anchored with two bamboo stakes and also provide protection from wind and frost through the trapping of air in the bubble air cells incorporated into the plastic sleeve. Care should be taken to ensure that guards are removed when temperatures increase to avoid burning plants.

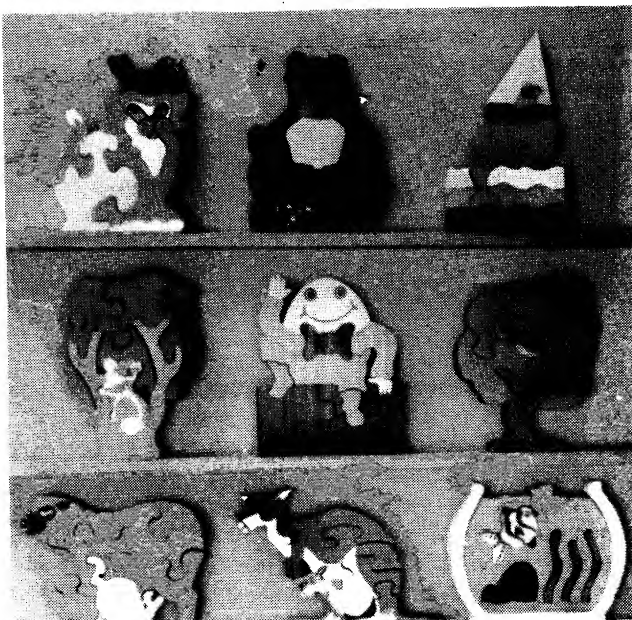
Suncell Plant Guards are sold in packs of five, RRP \$5. They are distributed by:
Fertool Distributors, 97-99 Abbott Rd, HALLAM 3803. Ph: 03-796-4433. Fax: 03-796-4311; and
DGR Plastics, 53 Mitchell St, SHEPPARTON 3630. Ph: 058-215-011.

Hydro Nurture costs \$12.95 for a pack of 3 and is available from most nurseries and hardware stores, or Suntech Technology, PO Box 4141, KNOX CITY CENTRE 3152.
Ph: 03-9887-4888. Fax: 03-9887-1999.

JIGSAW PUZZLES

The Puzzlepair, Joe and Naomi Dundon, produce a range of jigsaw puzzles that are made from Australian plantation-grown wood and are well finished with nontoxic stains and lacquers. The chunky pieces and large size of the puzzles suit young children. Of particular interest to pre-schools and childcare centres is the piece replacement service so that the puzzle can go on being used and enjoyed even if a piece is lost. A catalogue showing the full range and prices is available from:

Joe, ph: 051-825-783 or Dennis, 051-825-467 (BH),
or 051-825-386 (AH).



GLOCKEMANN WATER POWERED PUMP

The Glockemann pump is a water powered pump designed to be installed in a river or stream, that will operate constantly to produce a reliable daily water supply, even with very small flow rates. The pump operates very quietly and requires little maintenance as it has few moving parts. There are currently three models in production, with flow rate capacity ranging from 1.2 to 9 litres per second, and priced from \$1350 to \$1950 (plus handling). More information is available from:

Glockemann Peck Engineering Pty Ltd, PO Box 357,
WEST RYDE 2114. Ph: 02-874-6009. Fax: 02-481-8860.



DOWN HOME ON THE FARM by Megg Miller.

It is a misconception to believe the country is always peaceful and quiet. Fortunately most of us are lucky in that we don't have the perpetual irritation of aeroplanes overhead or the screeching brakes of semitrailers at the front gate. The constant noise many urban dwellers have to tolerate makes the country seem paradise. But even paradise has its little flaws and at this time of year silence is a rare commodity. With spring in full swing the balmy air here is punctuated in turn by the cackling of hens, shrieks from quarrelsome geese, or the monotonous call of a guinea hen. Sometimes too the turkey toms will synchronise their gobbling, making one heck of a noise, and amidst this a lone kookaburra will find amusement or a crow caw as it circles the bushes in search of eggs. Nightfall may put an end to all the physical activity, but silence doesn't descend with the dark. Sentinel guinea fowl high in the trees sleep with one eye open and create a clatter at the slightest provocation. Little escapes their notice. And this spring there is a night sound I missed during the drought last year, a chorus of frogs have taken up residence again, courtesy of the heavy winter rains.

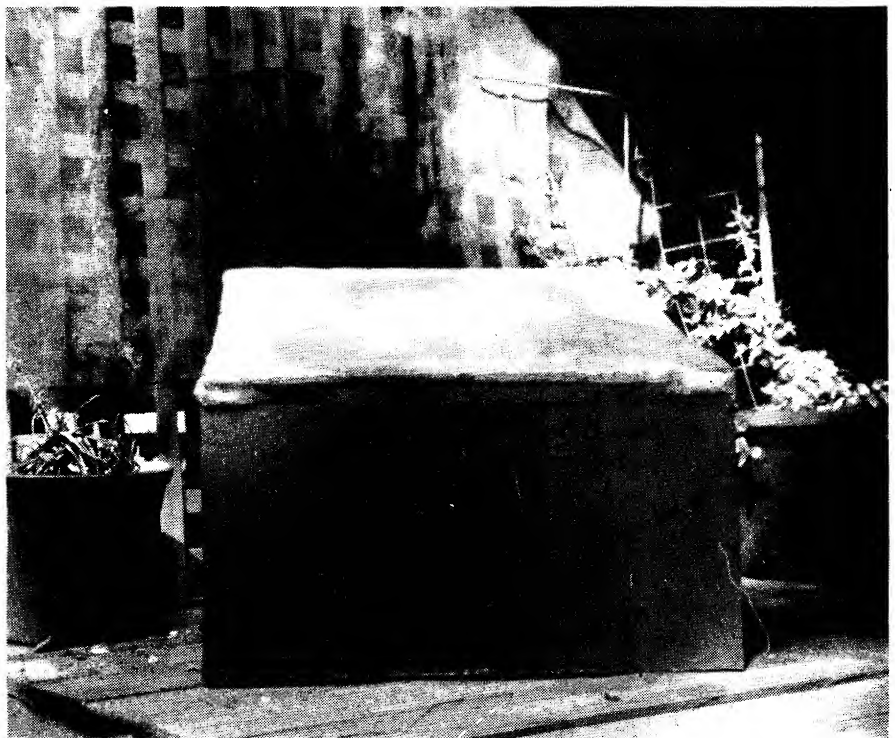
'I can't sleep when I go to the city,' friends often bemoan, 'It's so noisy'. Is it? Is it really any louder or more disturbing than what is encountered around many a farmhouse? I haven't mentioned the other nocturnal nasties that enliven my evenings, like the dog's incessant barking at foxes or the pandemonium created by possums on the corrugated iron roof. And then there are the roosters, about 35 in total, all vying for early morning vocal dominance. It's noisy here because there is such a range of poultry, though no doubt many a place with sheep or cattle would also have cause to complain, especially at times of the year when stock are yarded or weaned. Being a light sleeper, many of the night sounds intrude and wake me. It is always a surprise when visitors beam over their steaming coffee and announce that they had a wonderful night's sleep. How could they! Perhaps they belong to that group of diehards who can kip anywhere – and are the only visitors prepared to come back for a second night. The insomniacs, ever so politely, stick to day visits.

All the bustle and the noise marks the beginning of another breeding season, and already the incubator is switched on and humming contentedly. Only a few eggs I remind myself, only a few from each of the twelve breeds of fowl and just a sprinkling from the five turkey varieties and maybe just a dozen (or two) of guinea eggs. The surplus goose eggs must go in, off course, but thank goodness the sole Muscovy duck has chosen to do it herself. Only a few eggs I repeat, like a mantra, but time will tell if I can resist the lure of empty incubator trays while there are buckets of eggs wherever I turn.

With my busy schedule I am only aiming to hatch a couple of replacement pullets for each of the breeds and varieties kept here. Just a few eggs? Not likely! Some that are set will be infertile, or maybe the embryo will die during the incubation process. In addition, the greater proportion of eggs that hatch in early spring produce males, for some infuriating reason, so extra eggs may need to be set to allow for this. Usually I like no less than ten pullets per breed to select from, the best two going into

the breeding pen for next season and the remainder making up orders received over the year. The incubator is flat out coping, with the demands put on it, but they will be short term, as towards Christmas many of the hens will go broody and any breeds where there are a shortfall of chicks can be supplemented naturally.

The geese are best left to DIY. Most have paired off and settled into favourite nesting spots, though not without a lot of fuss. They can be utter pests, sniping at, and even going as far as to destroy, each other's nests. When the females first came into lay the fighting was so bad many laid soft shelled eggs because of the high level of anxiety – fortunately this has settled down. And as usual there are a few lone females on nests ignored by bachelor boys totally disinterested in marital bliss. I had high hopes for one well grown young gander, but despite locking him up over a period with two separate females he has 'set' his sights on the turkeys. He disconsolately trudges after them, calling, but his ardour isn't returned and I hope he doesn't pine to death over them. Geese are emotionally fragile, as I found out



With a few adaptations the sturdy hot box will not only give seedlings a boost, but will come in handy for proving the bread dough, and even as a haybox for slow cooking. It's been sited on the angle to catch optimum sunlight.

earlier in the year when two Muscovy ducks abandoned a young gander raised with them. He cried for a couple of days and then laid down and died, poor fellow. It's hard to believe the hissing, flapping males are such sensitive creatures, especially at this time of year when they are at their most defensive, but clearly they are a species ruled by their hearts.

Before the geese settled down to lay and general incubation responsibilities began, I took the opportunity to visit family many miles away. With chook self-feeders overflowing and the waterers filled all I needed was someone local to stop by and feed the dog and house cats. Some friends from town assured me it would be no trouble so I left the usual pages of instructions and set off for an adventurous weekend. It ended up that my friends were the ones to encounter adventure. Finding what they thought was a locked gate next day, they bravely scaled it. As they are not spring chickens, this took a little manoeuvring, hubby giving the diminutive (and skirted) wife a leg up and she scrambling over. After feed time this intrepid couple were faced with the same gymnastics to get back over and out. Next day they came prepared with a stool to make the task easier, but had to work out how to get the office wheely bin over as well. These kind, crazy people took the rubbish out, heaved the bin over and then refilled it. My goodness, was I embarrassed at the effort they put in that weekend, but even now the imagined picture of them getting over the gate, burns up in the air, reduces me to hysterics. You know the value of friendship when people are prepared to put that sort of effort in for you, bless their hearts.

As the weather through August has been exceptionally mild, the vegie garden has shot ahead with spring growth. Gardening is an activity I view as a reward for fulfilling office responsibilities, so it carries not only the pleasure of working the earth but an element of indulgence as well. With this approach even weeding is enjoyable. Having planted out some brassica seedlings later than advised for this area, I've been wanting to push them ahead, and adverts in newspapers for mini-cloches reminded me of the benefits of plastic. Recycled material from the office bin draped over netting to form a mini-hot-house was on an easy solution and the improvement from the additional

warmth could be seen within the week. It's been tempting to rush out and buy tomato seedlings and start them off early, but despite warm days the soil is still terribly cold, and we are bound to have frosts and more wintery weather ahead. As a compromise, I decided upon building a seedling hot box, recycling some old timber and thick plastic that was on hand. Woodworking projects like this sound simple at the onset, but I tend to rush in and then to spend extra time rectifying the mistakes.

It was indeed a satisfying moment when I lugged the completed box over to the verandah for painting, its heaviness bringing my father's woodworking projects to mind. I recall my mother complaining many times that his work was always bulky and heavy, and why didn't he make something she could easily move? I too, it seems, have inherited my father's propensity for building for endurance, probably because I spent many an hour as a child at the workbench alongside him. You don't realise till later just how much you absorb from your parents' activities and attitudes. I'm continually grateful for the wealth of knowledge I acquired and the gardening and carpentry skills picked up at an early age.

Family is an ideal note to finish on. Suni's 21st comes up in October and we feel blessed to have the opportunity to celebrate it. She's a sweet girl whom we love dearly, but as well, much of her life has been public and shared by GR readers, many having been thoughtful and generous to her.

It hasn't always been easy for her, she's had to struggle with the differences her background created and it is to her credit she hung in when peer pressure was tough. It wasn't till she was a senior student that the differences could be viewed as strengths and contributed to her independent thinking. A party with immediate family and friends will acknowledge her passage into adulthood and celebrate our love for her and the joy of living. In such a turbulent, troubled world we are grateful to have raised a healthy individual capable of taking responsibility for her own life. Regardless of the black dress and sophistication, we know as parents (just as ours did), that under the finish is the same child that cried help when she fell over and will continue to call upon us when things go amiss. That's the comforting certainty of the child-parent bond. Happy birthday Sunshine.

PENPALS

Christian lady, 42 years old, homemaker. Keen to share with other ladies. Interests: bible study, parenting, gardening and crafts.
'Glen Lee' C/- PO Box 242, EUROA 3666.

G'day, my name is Jasmaine, my friends call me Jazz. I'm 12 years old and enjoy playing sport, reading all I can about cute guys and of course shopping. I would like someone 12-16 years arfywhere in Australia.

Jasmaine Simmons

C/- PO Box 242, EUROA 3666.

Hi, my name is Christina. I have just turned 7 and I would like to write to other boys and girls 6-8 years old. I enjoy painting, swimming, drawing, stamp collecting, dancing, growing vegetables and playing with my toys. I love to get letters and I will answer all so please write.

Christina R,

C/- PO Box 242, EUROA 3666.

G'day, my name is Christine and we live on a farm in NSW. I'm in Yr11 and am 16. I like reading, cooking, gardening and painting. I'd love to hear from anyone with the same interests, or anyone at all.

Christine Whitty,

C/- PO Box 242, EUROA 3666.

Hi! My name is Daniel. I am 12½ years old and my interests are reading and horses. I would like a penpal around my age.

Daniel Imber,

C/- PO Box 242, EUROA 3666.

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CRYPTIC GRASSWORD

Continued from page 49.

B	L	E	A	R	Y	B	L	O	C	K	S
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Recent Releases

On this page we present information about newly published books that we feel will interest readers, with details of prices and publishers. We no longer distribute books for other publishers so if you're interested in buying any of the books described here, please order them through your nearest bookstore.

★ FEATURE TITLE ★

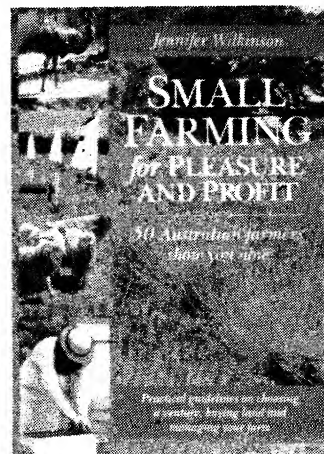
SMALL FARMING FOR PLEASURE AND PROFIT – Jennifer Wilkinson.

Whether you are looking at establishing a new farming enterprise or diversifying an existing one, there are plenty of ideas to stimulate your thinking. Jennifer Wilkinson outlines over fifty case studies of different farming enterprises around Australia, covering the areas of horticulture, livestock and farm stays, to assist in discovering what is the right one for you.

Each case study gives details of why the farmer chose the enterprise; establishment and on-going needs in the areas of finance, equipment and expertise; challenges and problems solved along the way; marketing; and future development.

The pattern that emerges is predominantly that of the need for a long period of hard work before any profit can be attained and the necessity to carefully select your property and your enterprise after much research. The choice of farming as a lifestyle is obvious throughout the case studies. Each farming enterprise is, by nature of this book, covered in general detail only. It is enough to stimulate interest into finding out more about an area of farming that you think could suit your interests, family, energy and finances.

P/b, 200 pp, Viking, RRP \$19.95. Ph: 03-9871-2400. Fax: 03-9879-6187.



BIRDS AND SMALL MAMMALS: A Pest Control Manual – RER Porter, MR Rudge, JA McLennan.

There are many devices available for purchase to be used to deter birds and rabbits from eating our food crops. Manufacturers and suppliers make bold claims, and growers buy the products more in faith than certainty. This book draws on the experience of New Zealand research and field trials to determine the usefulness of these devices for various crops. It also suggests ways of managing crops and designing shelter belts to aid in pest management.

P/b, 88pp, Manaaki Whenua Press, PO Box 40, Gerald St, Lincoln, New Zealand. RRP NZ \$35. Ph: +64-3-325-6700. Fax: +64-3-325-2127.

HEINERMAN'S ENCYCLOPEDIA OF NUTS, BERRIES AND SEEDS – John Heinerman.

Don't be fooled by the title into thinking this is a book telling you everything about nuts, berries and seeds. It is actually a reference book on the remedial benefits of these foods as cures and remedies for various ailments. As I am unfamiliar with some of the American fruits and nuts listed, it would have been helpful to have illustrations. It does, however, make interesting reading, with a recipe section and some growing and processing notes.

P/b, 402 pp, Prentice Hall, RRP \$24.95. Ph: 02-939-1333.

FRESH FROM THE GARDEN – The Adey Family.

With more than 100 recipes to suit every occasion, this is more than just a cookbook filled with tempting recipes. At their Darling Mills restaurant in Sydney, Cynthia, Susan, Stephen and Sara Adey serve fine food that is made from produce grown on their farm. The intrinsic connection between the kitchen and the garden is presented in this book with advice on cultivating and harvesting a variety of colourful greens, herbs, heirloom vegetables and edible flowers. The innovative recipes and beautiful photographs will inspire you to cook and garden as they have. H/b, 168 pp, Simon & Schuster, RRP \$34.95.

FREE-RANGE POULTRY – Katie Thear.

This book is a practical and comprehensive guide to the free-range management of poultry, but is written for poultry keepers in Britain. It is therefore limited in its usefulness to Australian conditions and is not recommended for people beginning in the field. The experienced poultry keeper who is able to adapt the information about breeds, diseases and management procedures to suit Australia, may find it helpful.

H/b, 179 pp, Farming Press, available from: Butterworth-Heinemann, PO Box 5577, West Chatswood 2057. RRP \$49.95.

SALLY MILNER CRAFT GIFT BOOK

A collection of popular craft ideas from the Sally Milner authors is presented in the form of fifty craft gift ideas. They include gifts for babies and small children, family, special friends and acquaintances, and use the skills of embroidery, decoupage, folk art and tole painting, knitting, heirloom sewing, patchwork, cross stitch and flower preservation. A timely book to buy with Christmas gift making just around the corner. H/b, 155 pp, Sally Milner, RRP \$35. Ph: 02-555-7899.

AUSTRALIAN FAMILY HOMEOPATHY – Paul Callinan.

A well-organised and easy to read book detailing more than a hundred common complaints and the remedy that best suits the symptoms. There is also information on Bach Flower remedies and tissue salts and a list of major Australian suppliers. A very useful guide to have on hand for reference.

P/b, 338 pp, Viking, RRP \$24.95. Ph: 03-9871-2400.

WHAT'S FOR DINNER DAD? – Damien Lovelock.

Don't expect this to be a conventional cookbook! Its cheeky style and unique sense of humour reflects the wild attitude of the author, who is lead singer of the band 'The Celibate Rifles' and single father to a twelve year old son. One example of his advice is: 'Waffles, cakes, lamingtons, etc. Buy them, they're cheaper and they're better.'! Sifting through the hilarity, you will find ideas and recipes for simple, nutritious food to suit the skills of parents unused to the kitchen.

P/b, 127 pp, Random House, RRP \$17.95. Ph: 02-954-9966.

SOLAR TECHNOLOGY DESIGNERS CATALOGUE – Christopher Darker.

This is a comprehensive compilation of products available to people who wish to design their own solar powered systems. It also includes other power systems such as wind driven generators and gas freezers. We feel it could be even more useful with an improved layout and printing style and a more easily found order form, with items cross-referenced to the information pages.

P/b, 144 pp, available direct from: Solar Technology, PO Box 1129, Esperance 6450. Ph: 018-934-607. \$59, including postage.

LOW MAINTENANCE GARDENING – Erin Hynes.

Another in the Successful Organic Gardening series, this title tells you how to plan a new garden or adapt an existing one to enable you to enjoy a garden that does not take all of your leisure time to maintain it. The book includes growing information for low maintenance flowers and 'effortless edibles', groundcovers and easy care lawns. There is a section with garden problems and possible solutions, and great pictures.

H/b, 160 pp, Lothian, RRP \$29.95. Ph: 03-9646-1544.

GRASSIFIEDS

HOW TO ADVERTISE

Use the form provided below, or a separate sheet of paper, to print your advertisement clearly, not in block capitals, including correct punctuation. Remember to include an address or phone number in your advertisement. Count the number of words and multiply by 60 cents per word (phone number counted as one word) to work out the total cost of your advertisement. Send your advertisement and payment to *Grass Roots*, PO Box 242, Euroa 3666, before the deadline and we'll include your advertisement in the next issue of *Grass Roots*. **Deadline for GR 112 is 27th October, 1995.**

Sender's Name For issue no/s

Address Classification

..... Postcode Cost

Cost for advertisements is 60c per word.

PROPERTY FOR SALE

NEW SOUTH WALES

COUNTRY COTTAGE, 3 b/r, c/port, excel access, power, ph, water, o/fire - Dungog. \$99,000. Ph: 049-959-239.

COUNTRY TOWN LIVING, 4 b/r comfortable family home, w/b & fibro, wood heater, off peak hot water. On lge block of land, f/trees & shrubs. Situated on outskirts of sml NW NSW. country village. \$50,000. Gwabegar, 068-436-247.

SNOWY MOUNTAINS - Nimmitabel - Second-hand shop, stocked. Three shop frontages, double garage, main rd. \$80,000. Three b/r home, all amenities. \$65,000. Separate titles. \$140,000 both. Ph: 064-546-372.

THREE HALF-ACRE HOUSING BLOCKS, sml rural village - Tambar Springs. Town water & elec avail. Quiet area, 60 km to Gunnedah Shopping Centre, medical facilities. High school bus. Price \$2000 ea, or \$5000 the lot. Bush setting. Ph: 067-442-420.

NYMBOIDA, NORTH COAST. 40 ac f/hold, 37 sq Nu-Steel home, 4 b/r (3 BIR), en suite, WIR, lge modern kitchen/dining room, lge lounge room, 2 wc, downlights t/out, 8' verandah 4 sides. Two 5000 gal tanks, perm crk, 2 natural springs, elec, ph, mail, school bus. Plenty of wildlife. \$230,000 ONO. Ph: 066-494-276.

YOUR OWN PRIVATE FOREST, 153 ac of forest only 10 mins from Bega & 20 mins from beautiful unspoilt beaches. All-weather access, crk & abundant wildlife. Building approval. \$56,000. Ph: 044-651-548 AH.

ROCKY HALL, FAR SOUTH COAST, 177 ac, nth facing, backing onto Coolangubra Forest. Phone/elec avail, mail service, school bus

to Wyndham & Bega. \$50,000 ONO. Ph: 064-942-294.

MT WARNING AREA, Pumpenbil (5 min from Permaculture Inst), 2.21 ha of secluded MO land. Solid shed, heaps character & potential. Dam and own r/forest, gardens started, 28 f/trees assorted. Needs loving. \$60,000 ONO. Ph: 046-311-644.

NORTHERN NSW, 35 km NW Lismore, lge architect designed solid sandstone block house. Wide verandahs all sides, 4 ac sloping site, ground level entrance, lge workshop & 2 vehicle c/port underneath. Magnificent views. Two b/r plus lge craft room. Well designed kitchen + storeroom, B/I cupboards, robes. Clivus Multrum composting toilet. Ph, power, 12,000 gal capacity r/w/tanks. Large fenced organic vegie garden, mature fruit/nut trees. Land in 2 sep strata titles giving complete privacy. Cabin with solar HWS. Roofed c/van. School buses, store, coffee shop. Suit early active retirement. \$179,000. Ph: 066-337-033.

WALCHA 50 km east, 330 ac, well grassed, perm water, picturesque view, 2 b/r w/b home, runs 90 breeders. \$230,000. Ph: 067-777-539.

NORTHERN NSW, 180 ac bush & cleared, sml income with potential to grow. Fences, dams, lost spring, ph, council approved building. Close to main & sub towns, cheap rates. \$45,000 ONO. Ph: 03-9878-6130.

CENTRAL WEST NSW, 660 ac, guaranteed income November. House site with 270° views, plus stone ready to lay, 80ac bush, 580ac crop/grazing, 2x5000 yd dams, 1x800yd dam, 220 ac pasture improved. School, hospital etc, 8 km. No chemicals used. \$135,000. Genuine interest only. Regret selling. Ph: 068-921-310 (Dave).

DORRIGO, YURT, on 5 ac, 2 b/r, spectacular

views, nestled into sunny north-facing corner. Adjoins nature reserve. Three bay shed, fully fenced, school bus. \$85,000. Ph: 047-877-714.

MODERN TWO BEDROOM cedar cottage on sth coast. Pretty block, gardens, set in 5 ac, 6000 lt tank & dam for irrigation. Bega, beaches & nat pks 15 mins. \$129,900. Ph: 049-408-829.

NORTHERN NSW, beautiful Tweed Valley, Mebin, 3500 ac, 30km SW of Murwillumbah. Views of Mt Warning bordering Mebbin State Forest. Unique opport. Property has been rezoned and is now selling 60x1 ac f/hold lots, fully serviced (passive energy, grey water reticulation, ph) set on 400 ac of community title land. Remainder of property provides business opportunities with a fully sustainable environmentally friendly rural community being established. Blocks start at \$70,000. First stage now selling rapidly. Enquiries ph: 066-797-070, 07-848-4800.

NEAR GLEN INNES, 591 ac, appealing 4 b/r home with study, verandahs, lge living area with o/fire. Dishwasher, s/c fire in dining, impressive views. Machinery & wool sheds. Fine wool country. Suit retirement or lifestyle with additional income. \$195,000. Ph: 067-336-733, or 015-702-070.

TAREE AREA - ELANDS, The Valley - 250 ac f/hold, crk, nat springs, dams, sheds, suitable MO. \$100,000. Ph: 066-763-961, 065-504-453.

NEVERTIRE VILLAGE, Warren area, 5 level adj blocks, total 11¼ ac. Water, ph, elec avail. \$12,000. Ph: 02-623-5503.

TOTTENHAM NSW, outskirts of country town, behind golf course, approx 137 ac with dam, fully fenced, unrestricted f/hold title. Price \$35,000. Ph: 068-848-303.

GRASSIFIEDS

PROPERTY FOR SALE NEW SOUTH WALES

BUSHRETREAT, mid-nth coast in Nambucca Valley, 27.5 ac, timbered, crk, 45 min to main town. \$48,000. Ph: 044-651-505.

IDYLIC MUDBRICK COTTAGE overlooks river on 1/2 ac, outskirts of Dungog township. All town amenities with peaceful rural outlook. \$110,000. Ph: 049-921-713.

TENTERFIELD, NORTHERN NSW, 4 b/r home, 14 ac, 4km town. Master b/r has en suite, 2nd bathroom/toilet. Large kitchen/dining room. Water tanks, 11,000 gals, 2 dams. Off peak HW. Separate craft studio, 2 car garage/workshop. Tractor shed, chook yard. Newly planted pines and natives. School bus, all schools, hospital. Comfortable and peaceful. Owners' health and age reason for sale. \$150,000 ONO. Ph: 067-361-232.

ALTERNATIVE, CREATIVE, 5 b/r sandstone home. Leadlight, french doors, solar, combust stove, power. Walk to Clarence River and beaches. Owners interstate. Must sell. \$190,000. Ph: 070-695-171.

NAMBUCCA VALLEY, choice chemical-free 2 1/2 ac, long crk frontage, well, 5000 gal tank. Permaculture, 150 fruit & nut trees, good fencing, dairy bails, sheds. Restored colonial timber home, return verandahs, 3 b/r, french doors, living, dining, modern bathroom, new kitchen, potbelly, power & ph. School bus at gate. Beaches 30 mins. \$160,000. Ph: 065-647-739.

NORTHERN NSW, peaceful, quiet, 118 ac, 1 km crk, fertile flats. Lovely home. Sheds, yards, run 25 breeders, kikuyu grass, elec, ph, school bus. Now \$140,000 ONO. Ph: 066-663-540.

CLARENCE RIVER FRONTAGE, 100 ac, fully fenced, mostly cleared, elec, ph, handy. \$70,000 ONO. Ph: 066-663-540.

NORTH NEW ENGLAND, 140 ac, chemical free, 3 b/r. Modern home, 240V solar, with combust heater, solar HW, 5 KVA generator etc. Water capacity 13,000 gal, seasonal crk, 3 dams, native timber, blue granite, sandy loam, soil. Has 16 council approved breeding/boarded kennels with unrestricted development, approved B&B for ecotourism, 2nd house allowed. \$235,000. Ph: 067-373-626 p/f, or 015-458-781. Tenterfield.

NORTHERN NSW, Armidale area, charming old w/b cottage on 3 ac with 3 b/r & sml study. Town water, nth aspect, panoramic mtn views. Large mud brick studio with potential for expansion. Very special place. \$125,000. Ph: 067-784-913 AH, or 059-646-202 AH.

ABSOLUTE PRIVACY on 600 ac of Australian wilderness bordering Blue Mtns Nat Pk. Permanent mtn stream with swimming pools, solar power and modern brick chalet! \$260,000. Ph: 042-844-074.

NORTHERN TABLELANDS, 640 ac, 2 storey, 15sq, tradesman built house. Creek, springs, dam, fully fenced, 2 titles, panoramic views. \$165,000. Ph: 066-578-020.

MID NORTH COAST, 147 ac, river frontage, perm crk, 3-4 b/r house. Fishing, swimming, r/forest, school bus, ph, elec. Situated between Coffs Harbour and Grafton. \$164,000. Ph: 066-494-571.

**DEADLINES: GR 112 - OCTOBER 27TH
GR 113 - DECEMBER 22ND**

CHEAP MILLIONAIRE'S RETREAT, private valley, own rd, r/forest, 80 ac. Elands - 30 mins Taree. Solar, brick house. Reduced to \$120,000. Ph: 065-505-012.

SUIT SHEEP OR CATTLE, 257 ac, spacious 37 sq b/v home, 3 yrs old. Tiled front patio, 3 lge b/r, lounge, dining, sunroom, family room, 2 toilets, en suite, tiled kitchen, bathroom, laundry. Double garage, + sep s/c 2 b/r flat. Shed 72x20, elec & fuel. Plenty of water, 35 f/trees, 10 ac cultivation. Bitumen rd, 25 km from Ashford nth of Inverell. Price \$180,000. Ph: 067-258-741, or 066-467-169.

NAMBUCCA VALLEY, 100 ac, 1/3 cleared, chemical free, Fiat 411R tractor with attachments, crk frontage, perm water, 10 hp Mono pump, 25,000 gal storage, 10 y/o, 3 b/r, w/b home with mud brick studio, panoramic views, power & ph, school bus at gate, beach 1/2 hr. \$180,000. Ph 065-647-684.

BATHURST 2269 ac of beautiful views and abundant flora & fauna. Undulating to steep, approx 60% heavily timbered native bush. Two crks, 8 dams & 28" rainfall. Shearing shed, 3 huts, power & ph handy, 2WD access, 4WD t/out. Ideal camping, hobby farm, holiday farm, horse riding, gold panning etc. Historic Hill End close by. \$199,000 or reasonable offer. Ph: 063-377-759.

HEAD FOR THE HILLS, head for Walcha, home in the glen, 20 fertile ac, 3 spring-fed dams. Neat 3 b/r cottage, power & ph, 40 km east Walcha. \$70,000. **BUSHRETREAT**, 102 ac, solid home & shed, river frontage, accessible by car. Tall timber verging to r/forest. \$65,000. A B Elder & Co, Walcha. Ph: 067-772-187.

TUMBARUMBA, western Snowy Mtns, 38sq mud brick house on 20 scenic ac, 9 km from Tumbarumba (trout/fishing, hour skiing). Passive solar, energy efficient, open plan living, 4 b/r, 2 bathrooms, parents' retreat, artist's studio/rumpus, landscaped gardens, home orchard, excel fencing, abund water, multi-purpose sheds. Price \$195,000. Ph: owner, 069-482-507.

KYOGLE, far nth coast, Lynch's Creek, 175 ac, drought-free country, 1 km beautiful Warrazambil Crk flats. Water right Lynch's Crk, perm springs. Abundant wildlife, magnif mtn views, Border Ranges, Nat Pks, NSW, Qld, surrounding district. Good fences, hardwood timbers, 2 hrs Brisbane, 12km shop, schools, bus, post, ph, power. Ph: Jim, 066-362-248 AH.

NYMBOIDA AREA WATERFRONT - sealed rd, 20 mins Grafton, 50 mins beach. Cedar home, 3 b/r, 31sq under roof, 40 ac, fencing, cleared & bush, wildlife, totally private. \$169,000 ONO. Ph: 066-494-195 AH.

BUSHRETREAT, f/hold, all timbered, approx 1500 ac, can be subdivided. High country with good views, 40" rainfall, 2 lge valleys, 1 with trout river, 1 with crk. A very quiet & secluded place to live with excel potential for cabins or

tourism development. 80 mins from Tamworth. \$150,000 the lot, or will subdivide smaller block off. Ph: owner, 067-831-446 AH.

BEAUTIFUL SECLUDED FOREST on a crk inland from Eden near the Vic/NSW border, 120 ac of good soil, tall grass, dramatic granite outcrops. Forests & nat pks all around & coast nearby. Access tracks to both nth & sth borders make this easy to share among 2 or more friends. \$79,500. Ph: 047-824-856 for maps etc.

QUEENSLAND

GIN GIN/CHILDERS, Qld, 25 ac, lightly timbered, dam, power, ph, school bus. Urgent sale. \$30,000 ONO. Ph: 070-976-252.

KOOKABURRA PARK ECO-VILLAGE. If you are interested in living in a community of like-minded people on 485 ac this could be the place for you. Freehold title to one ac sites, + you also own the 360 ac of parkland, a Village Lot with a Community Hall, the Lakes and sealed rd in common with the other residents. Each site is supplied with underground power, ph and utility water. Sites selling for \$30,000. Enquiries to: PO Box 713, Bundaberg, Qld 4670. Free Call 1800-061-689.

GLASTONBURY WOODLAND ESTATE. What estate offers you 2 ac lots and ownership of a r/forest? You have 1 lot for house and 1 lot for income. No body corp costs. Price from \$49,000, which you pay for one lot in other estates. Details, ph: 074-768-522, 074-452-576 AH.

TARA, QUEENSLAND, 30 ac, 2 room shed, power, dam, 23 km from town. Price \$16,000 + power guarantee, terms avail. Or, rent/caretake for \$25 per week, + power. Ph: 076-681-800.

COMET, 3 f/hold blocks within 5 km of a school, store, railway station & pub, for sale \$50,000 ea. The blocks have been subdivided off a lge grazing property. Each has hwy frontage & access, water storage dam, power & ph avail. This location is the centre of a lge coal mining industry, agriculture and 10 km from the site of the proposed Comet River Dam. The blocks are securely fenced, and have a mixture of fertile grassland, commercial timber and outcrops of sandstone suitable for house construction. Ph: 079-845-148.

TRADE THE RESPONSIBILITIES of owning land for a life on the water! Aluminium catamaran, 40'x20', spacious and seaworthy. Includes riverbank mooring. Potential living, fishing, cruising. \$35,000, or exchange real estate. Ph: 070-965-346.

BEECHMONT, 1 1/4 ac, 20 mins Canungra, 30 mins Nerang, 50 mins Surfers Paradise. Lamington Nat Pk mins away. Two b/r western red cedar home, polished timber floors, timber ceiling/exposed beams, timber kitchen, lge verandah. Creek, vegie garden, f/trees, chook house, abund wildlife. Close to school. \$125,000. Ph: 07-5533-3754.

Please print your ad clearly
so we can do likewise.

GRASSIFIEDS

PROPERTY FOR SALE QUEENSLAND

PLACING AN AD?
See page 68 for details

ISLAND MANSION, excel resort potential, hand-crafted stone & pole, guest house, pool, absolute beachfront surrounded by nat pk, elec, ph. One hr from Townsville. \$195,000. Video \$5 deposit. R Grafe, PO Box 896, Ayr, Qld 4807. Ph: 018-771-481.

ORGANIC FARM, perm spring, 2 windmills, dams, 9x6000 gal r/water tanks, solar power, house fenced. Ideal sml commune, sheds. Write: Lindy & Vince, C/- PO Box 747, ATHERTON 4883.

ATHERTON TABLELANDS, 45 ac good views, 2 dwellings, Barron River frontage, 2 dams, lots of privacy, f/trees, power, school bus, 8 mins from Mareeba. \$135,000. Biboohra. Ph: 070-932-724.

'GIVE ME A HOME among the gum trees' on the Darling Downs. Cosy 125 yr old workers' cottage, new paint and carpet, o/fire, verandah, wood & elec stoves, on 5 1/4 ac, 1 ac vine trellising, sheds, bore, ph, septic, 15 mins Warwick, 2 hrs Brisbane or GC. \$70,000. Ph: 07-3285-5196.

SUNSHINE COAST, urgent sale of 3 b/r b/v house on over 1/2 ac. Close to schools, shops, beaches & transport. Electric train to Brisbane. Price reduced (\$10,000) now \$128,000. Ph: 074-948-882.

COUNTRY COTTAGE, 7 fenced ac, lge dam, fruit & nut trees, 20x40 lock-up shed, 30x20 machinery shed, commercial aviaries, walk to school/shop. \$85,000. Ph: 074-840-205.

CAPE TRIBULATION, r/forest 5 ac, tranquil tropical living or investment. Beach, backpackers and general store within 1 mile. World heritage backdrop, 2 hrs, Cairns, 1 1/2 hrs, Port Douglas. Offers above \$58,000 considered. Ph: 070-941-352, or write to D Wachter, PO Box 581, MOSSMAN 4873.

GIN GIN, 30 ac subtropical r/forest, solar powered, Besser, 2 b/r open plan home, 4x8' verandahs, septic, bore, gas fridge, H/water, cooking, Norseman Heater, 2 r/water tanks, shed, c/port, fenced. \$130,000 ONO. Ph: 071-521-438 AH.

'GIVE ME A HOME amongst the gum trees', Glenwood, 3 yrs old, brick veneer 3 b/r home nestled in eucalypt forest, 20x30 Tri-steel shed on 6930 sq m of land with your own crk. \$95,000. Ph: 074-857-360.

BROOWEENA, 30 mins Maryborough, 178 ac, heavily timbered, perm dam supports abund wildlife, bitumen rd frontage, ph, power, bus avail, full fenced, c/van with 1000 gal tank. Very private. \$80,000. Ph: 071-591-135.

BE SELF-SUFFICIENT with peace & tranquillity on 60 ac of lightly timbered undulating land. Grow grapes, fruit, vegies, grain, goats, cows, sheep, horses, chooks, ducks, & spin your own hair, have your own milk, cream, butter & meat. Good fencing, yards & 8 sheds. Bore, crk & 4000 gal r/water. Solid 5 b/r home, power, septic, o/fire, s/c & gas stoves. All for \$130,000. Ph: 076-674-754.

A BEAUTIFUL AND HARD TO ACQUIRE property, 30 km from Yeppoon on Capricorn Coast, 2 1/2 ac. As-new 3 b/r home, c/port, shed,

on sealed rd. Twelve different varieties of f/trees all bearing, vegie garden, flowers, shrubs, ferns, palm trees in r/forest setting. Semi-perm crk through property. Birds galore, plenty water, 2 tanks 2000 & 5000 gal, 2 pumps, pressure water to house. Very quiet and private, close to fishing inlets. Suit healthy retirees. \$125,000. Ph: 079-351-283.

ISOLATED, PEACEFUL, well maintained 5 ac in farming country NW of Kingaroy. Two homes and fabulous 50x50' industrial workshop. Huge fully renovated home + another 2 b/r home on sep title, currently utilised as a Devonshire tea cottage with sml income, potential for other uses, ie B&B or as 2nd dwelling. Bird aviaries, estab gardens, much more. School bus at door. \$125,000, will neg. Ph: 071-680-210 or 07-3843-3304.

GUNALDA NEAR GYMPIE, fertile 5 ac, part cleared, shed, tank, seasonal crk, bitumen rd, power, walk shops, school. \$33,000. Ph: 07-3357-7003.

TWEED VALLEY, 51 ac of superb views located in prestige area, 15 mins from Coolangatta airport. Power to the block, springs, crks, lots of river stone in valleys, hardwood forest, etc. We're selling our superannuation policy for only \$195,000. Call/fax Michael or Lizzie on 066-766-007.

PRIVATE SALE, acreage, 168 ac seclusion with your future home/farm and significant timber and property investment. Equivalent more than 33x5 ac. Only \$1000 per ac = \$168,000. In valley adj state forest, 0.8 km perm crk bndry. Fully fenced. Sclerophyll forest, well timbered with spotted and blue gums, iron bark, stringy bark etc, excel for building and timber/land investment 0-5 years. Small granite rolling hills, 1-2 ac cleared, reticulated with practical small-family weekender. New 1000 gal tank, others and tennis court in disrepair. Access and provision for town power. Phone. Dam and tributaries. Mill 15 km, schoolbus 2 km, 32 km to Maryborough City, Hervey Bay/Fraser Is (60), Rainbow Beach (110), Noosa (165), Brisbane (260). Recreation, services, development easily at your fingertips. Ph: 071-296-438 (Mon-Fri), 071-254-128 (w/ends).

SOUTH-EAST QLD, Durong. Be self-suff and live off the land, 40ac. Large 3 b/r steel kit home, fully insulated. Has \$16,000 solar power system. Wood stove, s/c/fire, lge composting toilet, 10,000 gal water tanks, 12x12m and 10x5m sheds, shadehouse, chook pens, lge dam, underground water. Property is fully fenced, lots of trees and native wildlife like koalas, echidnas, eagles, emus. Large town (Kingaroy) 30 mins, Fraser Island 2 1/2 hrs. Spent \$104,000 Sell \$90,000. Ph: 071-648-103.

TWELVE MINUTES FROM BUNDABERG (Qld), nearly 5 ac virgin bush, never had chemicals on it, 3 b/r, all b/ins, owner built home, 4 1/2 yrs old, passive solar design. Looks down

on Burnett River and Cedars Bridge, then right out to the Watagan Ranges. Potbelly stove, nice for our 2 weeks of winter! Wood is free, just lying round. School bus. So secluded it's almost a secret. Please ph: 071-579-680.

LOWOOD, HIGHSET HOME, 3 1/2 ac, above frost/flood levels. Views across valley, 2 b/r, sleepout, 2 dams, 2 tanks. Native garden, herbs, vegies, natural bush. Part fenced - new. Good rds, commute Brisbane, Ipswich, Toowoomba. Shops/facilities 3km. Walk to schools. \$93,000. Ph: 074-262-196.

CRACOW, CENTRAL QLD, 50 km from Theodore. Two b/r clad house with elec, 4 tanks, ph, HWS, bath, shower, septic toilet, f/trees, vegie garden, fowl house, shed, garage, 1760 sq m, fenced, on edge of outback town. Good climate. Owners (in their 80s) reluctantly moved to city. Cracow has primary school, PO, shop, library, pub, regular medical services. \$36,000. Ph: 042-717-584.

VICTORIA

EAST GIPPSLAND, Snowy River, one bush block with power, ph, and water avail. \$35,000. Ph: Neil, 051-541-761 AH.

BUSH RETREAT, 20 mins Ballarat, natural bushland, echidna, koala, kangaroo, winter crk, can subdivide. \$85,000 ONO. Ph: 053-447-401, or 053-447-498.

NORTH-EAST VICTORIA, 15 mins from Wangaratta, modern 3 b/r house on 32 ac. Secluded, picturesque, hilltop position with good views of mtns. Property borders state forest, incl lge concrete w/tank, lge steel double lockup garage, 2 sheds. Ideal for personal retreat or for commencing alternative lifestyle. Asking \$90,000. Ph: 03-9841-9582.

MUD BRICK STEINER SCHOOL FOR SALE, (due to relocation project), 4 classrooms & amenities engendering a sense of wellbeing through the use of colour, natural materials and Steiner inspired architecture. Easily convertible to appealing home, studio, craft factory, or holiday lodge. One ac property in peaceful rural setting close to Steiner education, Mansfield, Lake Eildon, 1 hr from Mt Buller. \$87,500. Ph: 057-773-550.

THIRTY GLORIOUS ACRES, western slopes Mt Cecilia, Strathbogie, NE Vic. Magnificent valley views every window, 18 1/2 sq environmentally desirable 6 y/o family home. Two concrete tanks 50,000 lt, dam, semi-perm crk, bore avail, excel fencing, Ostrich paddock, sheep paddock, excel soil - ideal vines, suit most alt farming. Township 15 km, 150 km Melb, 11 km freeway. \$195,000. Forced sale. Business partner relocated perm UK. Vendor would consider another joint owner, 1 to 1 basis. Ph: 057-903-327, or fax details 057-903-328.

NEAR GRAMPIANS, off Glenelg Hwy, 1 b/r fibro cottage, shed, 1/2 ac, edge of sml township. Good soil & r/fall. Power, town water, lovely environment, birdlife. \$15,000 ONO. Ph: 055-682-741.

To avoid disappointment ensure
your ad meets our deadline

GRASSIFIEDS

PROPERTY FOR SALE VICTORIA

BLACKWOOD FOREST (near Wonthaggi, 90 mins Melb), 5 ac. Underground power & ph to nth facing house site with 360° views to sea & hills, 14x7m shed with power, 2 x 5000 gal concrete tanks, dam, 2000 natives planted and thriving. Beautiful & drought-proof. \$85,000. Ph: 056-783-255.

ALEXANDRA, 330 organic ac, cleared & bushland, adjoining nat pk, views Lake Eildon, wildlife, secluded, allergy free, magic environment. Two b/r cottage, stove, ph, SEC avail. Water tanks, dams, perm spring water, vegie garden, chook pen, sheds, good fencing. Sixty chestnut and other nut/fruit trees, blueberry bushes, eucalyptus and wattles suitable for potpourri business. Ideal as retreat or for families to share, potential for health resort. \$155,000. Ph: 058-826-353, or 03-9534-4670.

BUTTER FACTORY, needs renovating, next to river at Buchan, Vic. Ideal for art gallery or house. \$32,000 ONO. Ph: 051-550-215.

STOPPRESS, HEAVEN DOES EXIST, in the Tarra Valley. Situated on fringe of Bulga & Tarra Valley Nat Pks, Sth Gippsland, this superb 35.6 ha (88 ac) property comprises improved pastures & amazing natural r/forest areas with abundant native flora & fauna. Permanent crk & Tarra River frontage supplies all water needs & is pumped from the crk by environmentally friendly hydraulic ram pump operating purely by water pressure. Property has SEC but would convert to hydro electricity. Discover the delightful 'covered bridge' downstream! All improvements: cedar & wooden shingle homestead, 60'x27' fully enclosed shed & A-frame bluestone barn with mezzanine. Large & varied orchard. This unique property is ideally suited to an organic/self-suff lifestyle &/or B&B venture. \$298,000. Ph: S R Curry, 051-826-188.

DECEASED ESTATE, NUT GROWING FARM, Strathbogie Ranges. The property lies midway between the Hume and Maroonah Hwys, some 16 km from Euroa. It comprises 34 ac with 200 walnut and 300 hazelnut trees, approx 14 yrs old. The trees are just beginning to bear in commercial quantities. The balance of the land is suitable to extend the existing nut plantation or diversify to grapes, emus etc. The property includes a workshop, a sml one stand shearing facility, computerised irrigation, Fergusson tractor 35, a (10ac ft) dam, plus 4 other dams all spring-fed. The attractive 3 b/r w/b home incl carpets, curtains, light fittings, 2 ceiling fans, and renovated kitchen and bathroom. The property is priced at \$210,000. Some vendor finance could be arranged to an approved buyer. Contact: Tim Herbert, 057-972-471 after 6.30 pm, or mobile 015-542-021.

BRIAGOLONG, OLDER STYLE w/b home on 1/2 ac corner block with park adjoining. Three b/rs, o/fire place, w/s, baltic pine dado. Verandah on 3 sides, lots of paving, vegie garden, f/trees, chook run, shed, bore, BBQ area and lots of trees. Short walk to shop, school & bus to secondary college. Also 5 sq

**DEADLINES: GR 112 – OCTOBER 27TH
GR 113 – DECEMBER 22ND**

mud brick studio, 2 sml rooms, one lge. Great for artist, craftsperson or lge family. \$82,000. Ph: 051-455-573.

GRAMPIANS AREA (Vic), Moyston township, w/b house, 6 rooms, 3 b/r, 10 sq, + vacant shop/storeroom 10 sq. Has SEC, town water, septic, good shedding. Asking \$45,000. Owners working interstate, so property is for genuine sale, therefore we will negotiate on sensible offers. Ph: 060-403-826, 053-524-446, 053-525-857.

QUALITY ESTABLISHED PROPERTY situated close to Violet Town, central to Euroa, Benalla, Shepparton. The ultimate in self-suff with complete seclusion yet only 2km from progressive sml town with rail to Melbourne or 1 1/2 hr by freeway. SEC, ph connected, set up for alternative farming, currently emus. This attractive 8+ ac in 9 paddocks is situated on willow/red gum lined perm crk with pump. Ample water incl well, dam, 8000 gal r/w tanks. Excellent fencing (incl electric), gates, troughs. Shedding incl dairy, poultry, hay, lge workshop/garage, storage shed, wood shed, lge double c/port, silo, aviary & bird room. Exceptionally attractive garden with extensive 6yo orchard, vegie garden. Versatile low maintenance older style mud bricked house with 10' pine lined ceilings and ceiling fans. Original gas lights still in place. Modern kitchen with dishwasher, gas stove, combustion stove with hot water. Heatcharm combustion woodheater. Ample firewood avail. House has 2 bathrooms/kitchens/living areas and can be either a 3 b/r home, a 2 b/r home and fully self-cont bed-sitter, or 2x1 b/r units. Situated on quiet country lane in picturesque surroundings. Ideal for horse riding, walking etc. Potential for B&B or farm holidays. \$138,000. Ph: 057-981-674.

RUTHERGLEN, 12 ac with 3 b/r house, town water & tank, SEC and ph, ample sheds, a/ground pool with safety fence. Established young orchard & native trees, 3 paddocks, dam, school bus stops at gate. \$130,000 ONO. Ph: 060-329-390.

VICTORIA, ECHUCA-MOAMA, 20 mins on sealed rd to above tourist centres and Murray River. Large comfortable family home on 3 ac. Freshly painted. Stock and domestic water. Good soil. Close to Pericoota Station and Confest. Well treed. \$68,500. Ph: 054-893-255 after 6pm.

BUCHAN, EAST GIPPSLAND, nestled in sml town, solid 3 b/r, w/b home, incl s/c/stove, o/fire, powered bungalow/workshop; internal facilities; valley views. Near Snowy River Nat Pk/cave country. One hr from coast. Currently returning rental income. \$52,000 ONO. Ph: 03-9499-4885.

OLD MINERS COTTAGE for sale in Dunolly. \$27,000. For details see previous GR ad. Ph: 054-681-606.

EAST GIPPSLAND, 188 ac – 20 ac river flats, 20 cleared hills, balance bush, surrounded by forest in picturesque Cann River Valley. Un-

derground irrigation on 8 ac currently used for BD vegetables – would suit flowers or herbs. Modern 18 sq house, 3 b/r, lge verandah. Separate packing, machinery & hay sheds. Land & buildings only, for \$189,000 or on a WIWO basis with machinery (incl 2 tractors + much more). Ph: 051-587-245.

NORTH-EAST VICTORIA – 72 ac fenced into 4 paddocks. Comfortable w/b house, 60 tree orchard, estab herb garden, lge vegie garden, lots of shedding & pens for chooks, turkeys, geese, pigs etc. Alternative power source for house; solar & wind generated. Abundant water supply via well, dam & r/water tank. Owners relocating for work. \$87,500 ONO. Ph: after dark 057-269-465.

SOUTH AUSTRALIA

ADELAIDE HILLS, mud brick house with loft, slate floors, stained glass, jarrah beams, 8ft verandahs, beautiful views; 54 ac + of undulating red gum country set up for horses, goats. Yards, shed (one with power). Spring-fed dam, mains, rainwater, elec, ph. Vegetable garden, sml orchard, lge houseyard. Rural & peaceful; 45 mins to Adelaide via freeway. \$220,000 ONO. Ph: 08-388-6704.

PEACE & QUIET, step back in time with all modern necessities, elec, ph, rain & mains water etc. Large elegant stone house, 3 b/r, lge lounge, 7 rooms leading off long wide hallway. Two land titles, 2 garages, chook sheds etc. Inside & outside toilets. Situated in mid-nth region, lower Flinders Ranges, suburb of small country town. \$38,000 ONO. Apply: Pritchard, PO Box 30, Yongala 5493. Much money already spent on renovations & modernisation, owners wishing to tour Australia.

SCENIC ORGANIC PERMACULTURE property, 40 mins SE of Adelaide, 83 ac, huge dam, 6 semi-self-suff holdings. \$45,000 – \$120,000. With gravity-fed estab 120 tree orchards, veg gardens, energy efficient homes, or w/end retreats, native vegetation, wildlife. Share title. Whole worth over \$500,000. Enquiries welcome from groups or individuals seeking parts. Ph: Michael, 08-388-8439.

OVERLOOKING LAGOON comprising 3 x 100 ha natural mallee lots. Private rd access, fully fenced for privacy & seclusion. Domestic water connected. Only mins from facilities yet enjoying tranquillity in native paradise. Contact: Dianne, Rooneys Real Estate, 3 Barwell Ave, BARMERA 5345. Ph: 085-882-056. AH 085-883-162

TASMANIA

SECLUDED HILL BLOCK, 23 ac, stream, panoramic views across Huon Valley, 35 mins from Hobart, near great southern forest. Price incl house plans for 2 buildings already passed by council. Ill health forces sale. \$42,000. Private mortgage possible on 10% deposit. Write: 'Land Offer' (GR 111), C/- PO Box 242, Euroa 3666.

**Make Your Editor Smile –
Punctuate!**

GRASSIFIEDS

PROPERTY FOR SALE TASMANIA

EIGHT ACRES FENCED pasture and bush, 2 b/r terracotta tiled 1920s cottage, 2 lge dams + 10,000 gal potable water. Large sheds, sea mooring negotiable. Half hr Hobart. \$118,000. Ph: 002-674-698 AH.

NORTH-EAST 'PIONEER HOUSE', low maintenance, 2 storey, 18sq + verandah around, 3-4 b/r, unique timber t/out. Approx 5 ac, ample water, septic, power, ph, s/c/stove, huge shed, 1 1/2 hr Launceston. \$89,500. Ph: 003-542-547.

EAGLEHAWK NECK AREA, prime bush block of 60 ac, on historic Tasman Peninsula. Close to fine beaches & deep sea fishing. Port Arthur short drive away. Land can be subdivided. Has cleared area for homesite, rest is well timbered. Has 490 yds main rd frontage, overlooking Eaglehawk Neck Bay. Incl lge dam & shed. \$129,500 ONO. Please contact: L Mitchell, 55 Beach St, Bellerive, Tas 7018. Ph: 002-448-879.

COTTAGE, suit person with eccentric taste/craftsperson. Small, friendly rural township. Commuter distance to Devonport. \$48,000. Ph: 004-961-538.

OPPORTUNITY FOR GUESTHOUSE, or big family home, near Launceston, 4-5 b/rs, lounge, kitchen & dining space, wood/off-peak heating/solar heating. Self-cont flat under; 22 sq. Separate shack with 2 rooms, dble garage, workshop, set on 2 ac. Private access to water. Fruit trees, berries. Reduced price \$159,000 ONO. Ph: 003-947-171.

LACHLAN, DERWENT VALLEY, Tasmania, 85 ac, 30 ac cleared. Two dwellings, 4 b/r mud brick & cedar, and 2 b/r cottage studio. Forests, crks, private, waterfalls, 12 yrs organic. Ph: 002-613-020 AH.

HUON VALLEY, Franklin - private 10 ac, elevated, scenic - river/mtn views. Sheltered, good soil. Ready building site, power/ph close. (Hobart 40 mins). \$45,000 ONO. Ph: 002-663-407.

WESTERN AUSTRALIA

RURAL RETREAT, colonial style db/iron home, less than one hr nth of Perth on estab Rural Residential Country Estate. Five b/rs, 2 bathrooms, study, bedroom 5, family room with meals area, living/dining room, lge family kitchen, fitted laundry, dble garage under main roof, verandahs, b/g concrete pool set in brick-paved courtyard. Long tree-lined driveway to battle-axe 6.5 ac block, part wooded/bush/cleared overlooking farmland. Bore, retic, fenced, various outbuildings, scheme water, school bus. Civilised country living! \$220,000. Ph: 09-577-1129.

COMMUNITIES

MOORA MOORA - (Healesville). Shares are avail; houses for sale as well as oppo to build on our 245 ha mtn top. We are 1 1/2 hrs from Melbourne & seek new members. Write to: Membership, PO Box 214, HEALESVILLE 3777.

PLACING AN AD? See page 68 for details

NORTHERN RIVERINA, 100 km nth of Griffith, 32 km SW of Lake Cargelligo. For sale, 1/2 share in 588.8 ha (restricted f/hold). To run cattle & grow grain using organically certified products & working towards certification by BFA etc. Carrying capacity approx 80-100 breeders (with 80 ha sown crop for supplement feeding). Good bndry fences, 3 bores, 3 dams, elec, sheds, 3 cement tanks, sml salt-bush plantation, 121 ha sml hills, beautiful views, wildlife. Peaceful setting, lots of trees, ideal for weekender or oppo for equity investor. Price \$80,000. Ph: Greg Morris, 068-969-827 any time.

NORTH COAST NSW, Glenreagh, 40 mins Coffs Harbour & beaches, 1/3 developed share on council approved MO, 420 ac bordering onto state forest & flora reserve. Private 5 ac homesite includes: sml dwelling with all amenities, ready to move in, levelled building site, professionally built u/ground cellar, concrete slab, dam, 200 m crk frontage & river flat, great for grazing, garden, orchard. Communal assets incl: mud brick house, tractor with front-end loader, slasher, pump, generator, chainsaw etc. School bus at gate, 15 mins to Glenreagh, shop, school, petrol, PO, pub. A very special place. Price \$53,000. Ph: 066-492-281.

BUNDANOON, edge of Shoalhaven escarpment, Morton Nat Pk, shares avail, 120 ac, mainly bush, timber cabin, solar elec, like-minded environmentalists wanted. \$6000. Ph: 02-665-5161.

NIMBIN, 8 superb ac of 140 ac property overlooking Nimbin Valley. Spring-fed dam, 5 hp pump, 9000 gal water storage, lge shed, estab f/trees, totally private. Western red cedar home with cathedral ceilings, exposed oregon rafters, all timber lined with oregon stairs to loft. Master b/r & lounge with french doors to verandah, polished brushbox flooring. Wood heater, S/C & gas stoves, gas alternative hot water. WC internally, solar powered. \$90,000. Contact: owner, 07-5541-1344.

NSW TABLELANDS, 46 km SE of Armidale. Breathtaking 500 ac site for your own house, alternative lifestyle. No power or ph, 4WD access 6 km to road. Untouched gullies, caves, abundant wildlife, rocky country, fishing, timbered. One-sixth share (cost \$20,000) of hidden, undeveloped, wild, remote 3000 ac property. Located along steep, breathtaking Macleay River gorge. Write: Merrigalah, Box 1299 ARMIDALE 2350.

NIMBIN, 1/10 share 52 ha, Council approved MO. Adjoining Nightcap Nat Pk. Beautiful r/forest environment, 2 b/r accom + studio on 2 ha. Wood stove, solar power/hot water, ph, perm water, estab f/trees, 4WD access. \$95,000. Ph: 066-886-142.

NOOSA HINTERLAND RETREAT - Starlight Community, 320 ac, 19 ac for sale, company title. Solid timber house, r/forest surround with crk frontage & deep rock pool.

Solar, gas, 2x3000, 1x5000 gal tanks. School bus. Noosa 20 mins, Brisbane 1 hr. Additional house site on ridge, spectacular views. Orchard & permaculture areas with f/trees. Sheds & studio. \$83,000 ONO. Info brochure avail. Ph: 074-741-019, 015-735-739. PO Box 184, YANDINA Qld 4561.

NORTH NSW, 30 mins Lismore, Nimbin, 2 b/r 3 level timber house, starlight loft, solar, gas, septic, 5000 gal tank on 2 ac share of Billen Cliffs community. Permanent spring, mountain views, secure strata title. \$100,000. Ph: Matthew Power, 074-450-077.

BUCHAN VIC. Part share in 600 ac, 5 ac personal lease, lge cabin, stable, f/trees, new estab garden, alt energy, dam & lge w/tank. \$25,000. Ph: 051-550-215.

KYOGLE 2-3 b/r home, 10 ac, 1/25 share of 960 ac. Council approved MO. Solar power/hot water, wood heater, gas stove/fridge. ph. CB, perm spring, 2 pumps, 5 tanks, 2 sheds, double c/port. \$55,000. Ph: 066-333-246, or 066-322-503.

MALENY AREA. 3 b/r Queenslander on 200 ac community. Solar & gas. Large orchard. \$87,000 ONO. Ph: 074-961-685 nights & weekends.

KYOGLE, 1/25 share in 960 ac, 10 ac share, f/trees, spring water, gravel access & privacy. \$30,000. Ph: Tracey, 066-251-422. PO Box 492, LISMORE 2480.

TWEED VALLEY, 15 mins Murwillumbah, 1/11 share on council approved MO, 2 b/r cottage + livable shed. Solar, gas. Extensive gardens, f/trees, private forest. Idyllic setting. All-weather access. No cats or dogs. Community estab 18 yrs with friendly, supportive members. Limited vendor finance avail. \$65,000. Ph: 066-795-452.

TIMBOON BUSHLAND CO-OPERATIVE LTD was formed with the aim of purchasing 71 ac of forest to protect its high conservation values. It is 15 mins from the Southern Ocean - become a member & share ownership. We need your support. Further info: Helen, 055-954-200, or 983-515, or write RMB 4343 COBDEN 3266.

NORTH COAST NSW - TIC, 2/40 share avail for purchase in 1200 ac property in the upper reaches of Taylors Arm Valley, 100 ac cleared, remainder old forest. The area encompasses 2 secluded valleys & has river frontage. A great oppo for a self-sustainable lifestyle. \$28,500. Genuine enq only. Write to Andrew: 143 Erskine St, ARMIDALE, NSW 2350. Ph: 067-714-767 AH.

BUSINESSES FOR SALE

MANUFACTURING, self-suff & earth kind, mobile machine that mills, pulps, adds additives to fireproof & sprays cellulose insulation (waste paper) into household ceilings. Highly profitable & environmentally beneficial. Many other uses, such as making fast growing grass mulch, building boards, panel insulation & more. Made to order for \$15,000. These machines last a lifetime. Ph/fax: 1800-625-636 for details.

GRASSIFIEDS

BUSINESSES FOR SALE

UNIQUE RELOCATABLE bootmaking business, all equipment incl sewing machines, patterns, lasts, handtools, 2 week intensive training. Unlimited potential, ideal family business earn \$1500 + weekly, price \$25,000. Ph: 066-454-171.

HEALTH FOOD SHOP situated nth-west NSW, rich agricultural area, town 10,000+, in main complex. Ideal for future expansion, no opposition, price on application. Ph: 067-523-150 AH.

NEAT, CLEAN DELI with unique drive-thru section & video hire, sth suburb Adelaide, modern shopfit, walk-in coolroom, long lease, great landlord, 3 b/r residence attached, T/O \$4500 p/wk. \$45,000 WIWO (incl stock & 400 videos). Work this business & you can make money. Ph: 08-374-1884 (all hours).

THE GRANARY (WESTBURY), Tasmania, new f/hold English cottage-style residence built to high standard. Includes health food stores + tea rooms/garden. Fully equipped. \$140,000 + SAV. Ph: 003-931-992, or 931-606 AH.

PROPERTY WANTED

DWELLING, RELOCATABLE COTTAGE or shire approved shack/caravan in winterless region on f/hold site to A\$20,000 cash. Contact: Ken Everett, PO Box 112, FOXTON 5551, NZ. Ph: (00 11 64) 6-363-5577.

THIRTY-FOUR YEAR OLD male environmentalist/artist, seeks share in permaculture/organic property in quiet location with or without dwelling. Write to: J Bevan, PO Box 410, SPRINGWOOD, NSW 2777.

TWO ACRES wanted for organic vegies, herbs. Buy? Rent? Co-op? 2-3 b/r accom. Vicinity Albany, WA. Reply: PO Box 84, GNOWANGERUP, WA 6335. Ph: 098-285-063.

FIVE - TEN ACRES, Sunshine Coast Hinterland, Qld. Water access or provisions for same with older style home (not brick). Renovations needed OK or bare ac. Ph: Brisbane, 07-3207-1415 after 6 pm nightly.

JOINT PURCHASE, reliable person(s). Bulahdelah - Nambucca area. David Williams, 3 Maroomba, Terrigal 2260. Educational models/artist, 47, varied interests. Ph: 043-846-952.

WANTED: NSW ACREAGE, maximum one hr from coast. Mid nth coast to sth coast. Must be quiet location, 2-3 b/r house. To \$90,000. Ph: Jenny or Ross, 069-206-151.

FOR RENT

PRETTY COTTAGE OVER CREEK, part-furn, intentional community's sub-leasing terms apply. Brisbane 90 mins. Warwick 35 mins. \$85 pw. Ph: 076-661-203.

GIRAWEE NATIONAL PARK, \$50 weekly. Cottage amidst rocks, Magnificent views. Suit writer, single parent, n/s, own car. Ph: 076-845-124.

OPTION TO BUY, NEAR GRAMPIANS, 1 b/r fibro cottage, shed, 1/2 ac, edge of sml township. Good soil, rainfall. Power, town

**DEADLINES: GR 112 - OCTOBER 27TH
GR 113 - DECEMBER 22ND**

water. \$40 pw neg. Ph: 055-682-741.

SMALL COTTAGE, peaceful setting, Millaa Millaa. Established garden, chook pens, f/trees, wood & gas stoves, water, no power. Rent neg. MG Simpkins, C/- PO, MILLAA MILLAA 4886.

ROOM TO RENT, Brisbane, Inala, Swiss owner. Ph: 07-3372-8274.

CARAVAN ON 20 ACRES, with access to modern facilities. Waterfall - r/forest country. Female preferred. \$55 pw. Ph: Kim or Kevin, 070-972-571. Millaa Millaa.

SOUTH-EAST QUEENSLAND, highset w/b home, 3 1/2 ac, views, bush, dams, garden. Suit those seeking to try rural living, without giving up the security of their city jobs. Handy to facilities. \$125 pw. Lowood. Ph: 074-262-196.

GOLD COAST HINTERLAND, caretaker's residence, brick/tile home on 10 ac. Must be keen gardener & GR thinker to assist husband/wife team. Would suit single female/male or couple. Ph: 07-5533-7298. Write: PO Box 411, NERANG 4211.

RAMMED EARTH 3 b/r home, 1 hr from Brisbane, Sunshine Coast Hinterland, GR values, keen gardener, no dogs (kangaroos graze at door). No smoking. Tank water, school, shop, very close distance. Long lease 1-2 yrs. Ph: 074-949-797.

RESPONSIBLE FAMILY for 6 month let (Oct-April), 4 b/r house, 40 ac, 10 mins Murwillumbah. Quiet, peaceful, lovely valley. \$110 pw. PO Box 5043, SOUTH MURWILLUMBAH 2484. Ph: 066-779-551.

SPACIOUS, TIMBER HOUSE to rent - remote, pristine Flinders Island, Tas. 3-4 b/r, 3 bathrooms. Alternative energy & HWS, 2 attached greenhouses, 2 ac of land within 150 ac property. Surrounded by nat pk, ocean views, short walk to beautiful beaches. Gravity-fed water system with ponds, fountain & share of tennis court. Attractively furnished with sep studio building. Ideal for health-minded, non-smoking, wildlife loving 1-3 persons, writers or home vacationers. Possibility to develop permaculture independently or arrangement with owners. \$200 pw, 6 or 12 month lease. Ph & fax: 003-594-557.

WANTED TO RENT

RENT/RENT TO BUY or long-term lease, any acreage considered, SE Aust, coastal preferred, dwelling, sheds an advantage, secluded location, consider taking on any existing viable resource. Required for family. No communities. Ph: 08-388-8605 evenings. Write: Box 16, FLAXLEY 5153.

SINGLE MOTHER, would like to rent house in Macclesfield or surrounding area, starting early 1996. Replies: Trudi, 608 Warrigal Rd, CHADSTONE 3148. Ph: 03-9547-4422.

SHED, BARN, CABIN, max 1 hr from Hobart, 240V on sml acreage. Ph: Terry, 02-799-6128.

SEVENTH-DAY SABBATH KEEPERS: Will-

ing helpers, rental/caretaking property. References avail. Any area considered. Reply: 'Glen Lee' (GR 111), C/- PO Box 242, EUROA 3666.

WANTED

NATIVE PLANT MATERIALS. Wattle blossom, gum nuts, etc. All types, fully dried, native materials considered. Large quantities preferred. Good prices plus freight paid. Contact: Peter Hunt, PO Box 53, NORTHCOTE 3070. Ph: 03-482-2677.

PERMACULTURE COMMUNITY seeking like-minded individuals for joint involvement in land to be purchased or part of community to be annexed. Nondogmatic, nonreductionist, cosmological, permaculture orientated, ecologists preferred with practical or intellectual skills. Write to: Bill Haines C/- One Earth Institute, 4 Medway St, BEXLEY, NSW 2207.

STRATHBOGIE RANGES, Victoria, near Benalla & Mansfield. Looking for people interested in purchasing shares in land. The Moonee Creek Co-operative is situated in the beautiful Lima East Valley, surrounded by state forest, & provides an opport for people to live in a rural community in a harmonious & sustainable way. Write to: Moonee Creek Co-operative Ltd, RMB 1435, LIMA EAST 3673. Ph: 03-9808-1654, or 057-682-300.

OLDER 'GREENIE' seeks caretaking/gardening or low rental position. Fit, enthusiastic, committed country woman with 30 yrs experience living alternatively (sanely). Skills incl organic growing, tree planting, landscaping, horticulture (3 yrs study), permaculture (design consultant), stonework, interior design/planning, naturopathy & sundry crafts. Would be happy to renovate/restore & maintain dwelling where necessary. Animal lover (vegetarian). Please no animal abuse/neglect. Earth lover. No unnecessary exploitation. Position/rental would need to be relatively long-term. Greenie (GR 111), C/- PO Box 242, EUROA 3666.

CARETAKER WANTED for 100 ac bush. Donkeys/milking goats. Vic/NSW border. Long stay. Bring own caravan & refs. Box 33, DELLEGATE 2633.

TRAVELLING FAMILY seeking communities/families who will allow us to camp on their property for 1-3 nights, in exchange for good conversation & reciprocal visit in Blue Mtns, NSW. We leave Perth in November & plan arriving mid December in Blue Mtns. Write: 1 King Place, PADBURY 6025. Ph: 09-307-6386.

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so we can do likewise.

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MITTAGUNDI OUTDOOR EDUCATION CENTRE, staff required for '96. Volunteers' wage, board & keep. Write to: The Directors, Mittagundi, OMEO 3898. Ph: 051-597-238. Applications close Oct 20 '95.

OPPORTUNITY FOR SUITABLE PERSON/couple caretake westside Brisbane acreage. Excellent location. Conditions widely neg. Send stamped envelope for details. PO Box 366, KENMORE 4069.

FREE ACCOMMODATION on beautiful 160 ac property west of Bundaberg, in SE Qld, in exchange for gardening etc, about 8 hrs per week. Share property with vegetarian couple. Prefer single person or parent & child. Wayne & Milu, PO Box 235, GINGIN 4671. Ph: 071-572-736.

VEGETARIAN, n/s person wanted to share house, live in caravan, Hunter Valley bush block, exchange assistance. Visitors welcome. Ph: 049-382-036.

THERE MAY BE A LADY out there who would like to live an alternative lifestyle but hasn't the money or the confidence to achieve this aim. Now that I have completed my comfortable passive solar house I can offer such a lady a live-in position at a very low rent in return for some companionship & a little help in the vegetable garden. Rod (GR 111), C/- PO Box 242, EUROA 3666.

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CLUBS

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AFFILIATED DONKEY SOCIETIES of Australia. For info on membership, magazines & help avail write to: Mrs Pam Newton, PO Box 63, Hurstbridge 3099, and you will be contacted by the representative in your state.

Wairane Naturist Retreat. In the Warby Ranges, Glenrowan. Open to visitors & members. Farm animals, tent & caravan sites on 100 ac, bbq facilities, game courts. All bathroom facilities with H/C water, A/G swimming pool, scrub golf. Ideal family retreat, dress optional. Hosts John & Jose van Egmond, RMB 4430, GLENROWAN, Vic 3675. Ph: 057-652-315.

CALENDAR EVENTS

HUNTER VALLEY GARDEN FESTIVAL, Maitland Showground on Fri 20, Sat 21, Sun 22 October 1995. All enq ph: Loretta Payne, 043-682-040.

WORKSHOP ON USING SALINE LAND, 25-20 March '96, Albany WA. \$200 incl tours. All enq ph: Steve Porritt, 098-420-500.

22nd MALDON FOLK FESTIVAL, Nov 3, 4, 5, 6 1995. For ticket booking & info ph: Maldon Information Centre, 054-752-569.

**DEADLINES: GR 112 - OCTOBER 27TH
GR 113 - DECEMBER 22ND**

THE AUSTRALIAN WOMEN'S WEEKLY Needlework Craft & Art Fair & the Queensland Quilters Inc new Quilt-o-rama exhibition will turn the Brisbane Exhibition Centre into an irresistible craft emporium teeming with Christmas ideas, from 26-29 Oct. All enq ph: 07-3844-1588.

PRIMROSE PARK ART & CRAFT CENTRE, variety of workshops & demos. Write to: The Secretary, PO Box 152, CREMORNE, NSW 2090.

PUBLICATIONS

'AUSTRALIAN TOBACCO'. How to grow, cure, treat & cut your own. A well researched book by John Van der Linden. Send \$12 (postage included) to Lyn O'Brien, C/- PO, BARMAN 3639.

'AUSTRALASIAN HEALTH & HEALING'. Journal of alternative medicine. Australia's major health care quarterly, emphasising self-healing & prevention of illness through measures which raise body defences. Sold at most newsagents & health shops, \$4.95 ea, & by subscription, \$23.40 or \$29.90 with Health & Healing Newsletter per 4 issues (1 yr). Write: Australasian Health & Healing, 29 Terrace St, KINGSLIFF 2487.

'NEXUS NEW TIMES' magazine is an independent publication bringing you the essential facts behind today's news. We describe new ways of living which improve your mental & physical health & enable you to thrive in the late 20th century. Take part in positive change - subscribe now! \$25 pa. Nexus New Times, C/- PO, MAPLETON 4560.

'NIMBIN NEWS' is a co-operatively run access magazine with articles & info from Nimbin & other areas. We cover concerns relevant to alternative lifestyles & others looking for the most sustainable way. We are one of the longest running alternative magazines & the Nimbin bio-region is at the forefront in the development of sustainable systems. As networkers we scan many magazines for suitable & scarce info for our readers. Subscription: 12 editions for \$25. Sample copy \$2.50. PO Box 209, NIMBIN 2480.

'THE OWNER BUILDER' MAGAZINE. Want to be a successful owner builder? *The Owner Builder* magazine has plans, money saving ideas, advice & articles on successful owner builders. *The Owner Builder* magazine is avail from newsagents or by subscription. \$24 for 6 issues. For more info write: PO Box 974, BENDIGO 3550.

'THE PERMACULTURE EDGE' magazine for current info on applied permaculture worldwide. Internationally subscribed & sourced: agriculture, economics, politics, sociology for the future. Subscribe now \$16, 4 issues. Permaculture Nambour, PO Box 650, NAMBOUR 4560.

'THE SEED SAVERS' HANDBOOK' by Michel & Jude Fanton, selling like hotcakes.

Don't miss out, order today. \$23 post paid. Box 975, BYRON BAY 2481.

ANIMAL BOOKS - 'YOUR DONKEY', 'Cats' Company & many more by post. Lists from: Broomtail Publications, 171 Eaglehawk Rd (PO Box 62), LONG GULLY 3550.

BOOKS. NEW & OLD. Australian, lifestyle, Pacific, biography, horticulture, gardening, outdoors. Lists avail. BA & JM Wallace, Box 325, PORTLAND 3305.

ALTERNATIVE PLANS & PRODUCTS 7TH EDITION CATALOGUE 1995. The 7th edition of this popular catalogue is now avail. The catalogue contains a comprehensive listing of books, booklets, plans & infopacs covering alternative power generation, ethyl alcohol production, wind power, gas generation, solar stills, alternative housing plans, low voltage workshop set-up, appliance conversion, special batteries, mini work vehicle construction plans, home based business, solar panel making & water pumps, water purification. Other titles include steam engine & methane gas generator plans, electric vehicle plans, fuel cell construction, solar ovens & water heater plans, solar furnace, vortex tube plans, free energy machines & magnetic engines & generators. For the *Alternative Plans Catalogue* send \$5 to: Alternative Plans, PO Box 487, ASHGROVE 4060. 33 Woodview St, SAMFORD 4520.

NEW AGE BOOKS and audio tapes by mail from Broomtail Publications, 171 Eaglehawk Rd (PO Box 62), LONG GULLY 3550. Ph/fax: 054-430-196.

'NATURAL HEALTH', the magazine of the Natural Health Society. Subscribe today, \$34 yearly & receive: 6 vital magazines, discounts at participating health food stores & natural therapies practitioners, listed in magazine. Head Office, 28/541 High St, PENRITH, NSW 2750. Ph: 047-215-068.

'AUSTRALIAN HERB INDUSTRY RESOURCE GUIDE' - second edition now avail.

Comprehensive listing of herbal sources & resources. \$18 + \$2 p&p from: Focus on Herbs Consultancy, PO Box 203, LAUNCESTON, Tas. 7250. Ph: 003-301-493.

'GRASS ROOTS', 35 mixed editions nos 18 to 95 - \$70 + p&p. Wanted *Grass Roots* 6, 7, 10, *Earth Garden* 10, 50 - pay \$10 ea. Ph: 079-728-402.

'OUR TIMES', Byron Bay's bimonthly magazine designed for free spirits everywhere. Covers the how & why of out-of-city migration to a simpler style of coastal country living. Articles on everything from health & healing to house construction, from sex & surf to spirituality, & how people make a living. \$25 pa, subscription or send \$3 for sample copy to: Our Times, Bamboo Tops, Bangalow Rd, BYRON BAY 2481. Ph: 066-872-244. Fax: 066-872-245.

'GRASSROOTS', Early Years + nos 10 - 99, \$200 inclusive + postage. Fisher, PO Box 60, BLACKMANS BAY, Tas 7052. Ph: 002-291-894.

**Make Your Editor Smile -
Punctuate!**

GRASSIFIEDS

PUBLICATIONS

'PANTHOLOGY'. A digest of paganism, shamanism, magic, wicca & sacred ecology from around the world. A 16 page broad spectrum magazine with something for everyone from the new seeker of the old faith to the familiar territories of the devoted thinker. Subscriptions, \$10/4 issues, to: Panthology, PO 1350, WODEN, ACT 2606. Include SAE for separate queries. Free sample with SAE for 1st 100 GR readers.

EARTHWORMS, learn how to breed them for gardening, composting, fishing. Free booklet from WormWide Books, Box 603(G), MOOLOOLABA, Qld 4557. Ph/fax: 074-444-471.

FREE, 'PRESCRIPTION FOR LIVING' newspaper containing up-to-date health principles & guidelines from Jesus Christ through His prophets. Dreams & Visions Evangelistic Centre, MS 21, BOONAH, Ph: 074-671-183.

HANDMADE COOKBOOKS. *What Do I Do With All Those Zucchini's?* & *The Humble Potato Cookbook*, \$4 each, + p&p \$2 two books, \$1.50 one book. Anne Rooks, 71 Clara St, TUMBARUMBA 2653.

HOME EDUCATORS, *Education at Home* is a new national magazine for Australian homeschoolers. Personal accounts; insights; resources; encouragement; support. \$26 for 4 issues. Home Education Press, 23 Bardolph St, BONYTHON, ACT 2905.

FOUR STEINER TEACHING MANUALS. School or Homeschool - Class 5 & 6: Language, Maths, Social Studies, Science. All books by Alan Whitehead. Each book \$10: Golden Beetle Books, Box 481, MULLUMBIMBY 2482, or write for titles list.

'GRASSROOTS', Early Years (1-5) to issue 110, complete + *Seed Savers*, *Bumper Book*, *Permaculture Two* (\$2.50 each). \$320 includes post. Ph: 077-873-572. Jeanette Miller, 4 Jane St, CHARTERS TOWERS 4820.

NUDIST PENPALS MAGAZINE, worldwide contacts, 100 photos & addresses, all ages, seek friendship, romance. \$20 pp to: AP Co, 66 Glenburnie St, SEATON, SA 5069. Ph: 08-243-0517.

HOW TO OWN the house of your dreams free & clear... irrespective of your present financial position. Guts is your only requirement. There really is a simple formula for owning your dream home in your lifetime! You decide! A 100% money-back guarantee that you will be delighted. Ph: 015-994-982, or fax 098-814-295, or mail \$24.95 to: The First, PO Box 583, NARROGIN WA 6312. All Australian credit cards accepted. Please supply your name, card no and expiry date with your address & ph no and we will send these 2 amazing books to you immediately! Please mention where you saw this article.

BOOKS. Our 1995 catalogue is now avail. It includes books on archaeology, architecture, art, design, Egyptology, music, photography & more. To obtain your FREE copy simply ph: 02-212-4558, or send your mailing details to: Hermes Books, PO Box 1241, STRATHFIELD, NSW 2135.

PLACING AN AD? See page 68 for details

BOOKS - JUST FOR YOU. Are you seeking any special book? Contact Pamela, PO Box 263, MAYFIELD 2304.

CONTACTS

PLACING A CONTACT AD?

If you do not wish your address to be published, you may prefer to have replies sent C/- PO Box 242, Euroa 3666 (our address) and we'll forward them (unopened) to you. There is a nominal charge of \$5 for this service, so please add this to the amount when calculating the cost of your ad.

NEW SOUTH WALES

MALE, 27, seeks female companion. Kids lovingly accepted. Ph: 063-377-763 after dark. **OPPORTUNITY FOR CHEERFUL n/s**, vegetarian interested in building, gardening, low-impact lifestyle. I'm healthy & positive, spiritually awake, nonreligious, realistic. Like living close to nature, physical work. Interests: healing, words, music, current affairs. Computer semiliterate, wide life experience. Read *New Scientist*, listen to RN. Separate caravan, power & ph. PO Box 850, TAREE 2430.

MALE, FORTY, easy-going, open-minded, excellent condition, seeks passionate soul mate, children OK, to share a future together. Photo please. Michael, PO Box 36, BLAKEHURST 2221.

INTELLIGENT GUY, 42, 6ft, 83kg, handsome, honest, mature, quiet, travelled, resourceful, eccentric, own home, divorced 5 yrs, 1 young child, seeks monogamous r/ship with natural (younger) lady who's broad-minded, good SOH, artistic, home loving, nonreligious, slim build, longish hair, enjoys the bush, kids, gardening, playing golf. Drink/smoke OK (pubs, footy not OK). Preferably lives Ulladulla to Bega area. Ph: 044-743-934, or write Box 426, MORUYA 2537, with photo.

ASIAN MALE, 50s, seeks lady, age and nationality open. PO Box 125, ERSKINEVILLE NSW 2043.

WARM HAPPY CARING lady, 40s, brunette, still some accent. Seeking friends, country orientate. Ph: 064-840-147, Susy.

WIDOW, SEVENTY FIVE, 5'2", 8st, 12lbs, fair, brown hair, very active, kind & caring, interests: home & country life, gardening, animals, craft work, country & western, car travelling. Like to hear from man 75, any area from Dubbo to Hunter Valley. All letters answered. WW (GR 111), C/- PO Box 242, EUROA 3666.

CONFIDENT, COMPETENT, idealistic, practical, 38 yo Scorpio. Loves massage, water, bush, creating, working. N/s, no drugs. Seeks interesting, intelligent, funny, active,

nonmaterialistic lady who is free to have adventures. Mid-north coast now, points north next year. Reply: Terry (GR 111), C/- PO Box 242, EUROA 3666.

IF YOU ARE A ROMANTIC who likes open fires, candlelight dinners, slow dancing and moonlight walks on the beach then you may be the man I've been looking for. This Scorpio, single, 41 yo mother is looking for a little romance in her life. I live on the nth coast near Grafton. If you think you have what I'm looking for write to: Scorpio NSW (GR 111), C/- PO Box 242, EUROA 3666.

NORTHERN NSW, woman, 47, practical, intelligent, tertiary educated, broad-minded, n/s, s/d, slightly alternative, honest, nonmaterialistic, independent, enjoys country living, self-suff, bushwalking & good discussion. Would like to share my life with like-minded, intelligent, caring man. Please write to: S (GR 111), C/- PO Box 242, EUROA 3666.

TAURUS GUY, mid 30s, 5'8", medium build, n/s, living in Sydney's inner west, dreams of self-suff country life and hopes to realise in about 2 years, likes bushwalking, movies, eating out, also into alternative arts like massage and astrology, seeks female companion with similar interests to share life. Kevin (GR 111), C/- PO Box 242, EUROA 3666.

ALICE IN WONDERLAND needed, I've found wonderland, now Alice. Male 47 yrs young, Scorpio, acceptable looks, smoker, s/d, slightly disabled (arm not working), divorced, no ties, practical, logical, loving, kindhearted soul, enjoys most of life. Currently renovating unique mud brick house on 90 ac on the far nth coast tablelands, friends (pets) abound. Wish to meet my Alice as a partner in life. Ian (GR 111), C/- PO Box 242, EUROA 3666.

BEFORE I REACH the big 50, 162 cm male, living & employed nth Tablelands seeks honest, sincere, intelligent, nonsmoking lady who is looking for a partner to share the future. My interests are nonsporting, outdoors orientated, it would be beneficial if yours were of like nature. Reply: HG (GR 111), C/- PO Box 242, EUROA 3666.

GREETINGS, PERFECT STRANGER, I've climbed many mountains, walked many beaches, turned a lot of stones, all in search of you. You're free spirited, adventurous, intelligent and creative. Perhaps twenty or thirty something, caring, sincere and proud of your femininity. You're untrammelled by convention, unburdened by emotional baggage from the past. Our journey is at hand with each sunrise and sunset, a truly original thing. DANTE (GR 111), C/- PO Box 242, EUROA 3666.

GOOD WOMAN SEEKS good, loving man. Attractive, slim, 30 yo lady, high school art teacher, country born, presently working in city, wishes now to share natural lifestyle (not too remote, cooler climate preferred), with gentle natured, honest, loyal, caring, intelligent, adventurous man, 30-36, nature/animal lover, n/s, n/d (drug free), with own home (no ties), who one day wants children, with home-maker. Reply: Catherine (GR 111), C/- PO Box 242, EUROA 3666. Photo appreciated.

GRASSIFIEDS

CONTACTS

NEW SOUTH WALES

INTELLIGENT LADY seeks positive down to earth man to share life with. I am 33, 5'9", slim, l/d, semi vegetarian, spirited, great SOH, emotionally stable, no kids (yet), well travelled, spiritually inclined and believe in honesty, communication & enjoying life. I like horse riding, animals, backgammon, music, writing, reading, the bush, relaxing, good conversation and learning. Photo appreciated. GG (GR 111), C/- PO Box 242, EUROA 3666.

HIPPIE DOCTOR, musician, yogi, artist, invites medicine woman, masseuse, yogini, or special lady of spiritual quality to share healing forest sanctuary, alternative vegetarian lifestyle, orchard, permaculture gardens, campfire music. Devotion to peace, healing, open heart. Option to practise in registered natural health clinic if desired. Dr K (GR 111), C/- PO Box 242, EUROA 3666.

FILIPINA, 35 yrs old, would like to correspond with gentleman who is honest and sincere, 35 to 45 of age for lasting r/ship if suited. Please reply with photo. Cita, PO Box 1258, QUEANBEYAN 2620.

COMMITTED BUDDHIST (Mahayana), female, 47, average height and weight, above average looks. Professional artist (poor, but happy personality) able to relocate. Looking for a tall, pleasant looking man 43-53, n/s, s/d. Prefer Buddhist (or willing listener), quiet, enjoys arts, classical music, the bush, is good humoured, practical and kind. Confident of his own abilities, happy to accept my independence and skills. I've lived in the desert, cities and the bush, I'm affectionate and compassionate, respect all life, and seek the same in a man. Artist (GR 111), C/- PO Box 242, EUROA 3666.

LADY, YOUNG 50, seeks sensitive, gentle, romantic man to about 55 with sense of fun, with whom to share loving, caring r/ship and make happy, comfortable home for and with each other. I'm 5'5", 10 st, n/s, n/d, secretary, reasonably fit and enjoy gardening, being female, walking, crafts, being together, gentle lifestyle but not primitive. Please write to: MM, PO Box 1409, ARMIDALE 2350.

WOMAN, 47, with horses and other farm animals, seeking partner my age or younger, need help to renovate older d/brick cottage in country town. To acquire more land, possibly Vic. Only financially secure with maybe own large acreage, open-minded, caring, generous, New Age conscious person need apply. Photo and particulars. AS (GR 111), C/- PO Box 242, EUROA 3666.

PETITE, FILIPINA LADY, 40, 5 ft, 8 stone, n/s, n/d. Enjoys country life and music. Looking for genuine, sincere, loving, honest & caring gent. Seek man 40 or above. More details ring 068-626-247.

QUEENSLAND

BORN AGAIN CHRISTIAN (independent) man, 34, wants b/a Christian lady, virtuous in old-fashioned way, natural, good looking, non-smoker, not vegetarian, able to control emo-

**DEADLINES: GR 112 - OCTOBER 27TH
GR 113 - DECEMBER 22ND**

tions. Prefer Baptist, Church of Christ, Brethren. View friendship etc. Age open. Likes to dress sometimes to my likes within reason. Loving and forgiving. Nice too! GF, PO Box 1286, MILTON 4064.

ENTREPRENEUR, EXTRAORDINAIRE, worldly, balanced, sincere, with 47 years to live. Available as a friend, lover, husband, father, business partner. Offers 45 ac in hidden valley near Maleny, Qld, with tropical r/forest, clean underground water, fertile soil, views. Secluded but handy to all amenities. Ready to give again unconditionally. David Kay, Ph: 074-949-860, PO Box 144, BEERWAH 4519. **DO YOU NEED A FRIEND?** Hi I'm Terry, employed carpenter, born July, Vic. Live on natural bush block not far from coast. Just past 50 (at times feel like 28!). Been married once but been on my own too long. I love honesty, sincerity, loyalty & gentleness. I'm accompanied by heaps of animals both wild and domestic. Would love to hear from you. Please write to: Terry's Place, Apple Tree Creek, M/S 315, CHILDERS 4660.

I AM HAPPY with my life but missing an energetic girl with whom to offer my love, share dreams and a family. I am a loyal, sincere, idealistic, 30 yo, 193cm tall and some say athletic and handsome. I love bushwalking, nature, gardening, music, dancing, triathlons and a healthy outdoor lifestyle. Am n/s, n/d, no drugs, nonmaterialistic. Enjoy teaching science and financially secure. I am a faithful Christian and respect all faiths. Interested in other cultures esp indigenous. Speak 3 languages, much travelled and aim to spend some time in Africa/Sth America, perhaps settling to live a permaculture lifestyle with those in need. Dislike a subservient partner. Reply: Martin, PO Box 1832, INNISFAIR 4860.

CULTURED 'POST-HIPPY', male, just returned from overseas to unique self-built home on bush acreage near Brisbane. Interests: music, pottery, books, films, art, antiques, poetry, travel, good food & conversation. Forty seven yo, look 30s, slim, fit, good looks, 5'10", black hair, nice hazel eyes & smile, gentle, positive, well-adjusted, SOH, s/d, no ties, seeks soul mate. YB (GR 111), C/- PO Box 242, EUROA 3666.

WOMAN, FORTY-THREE, loves animals, gardening, having fun, smoker, s/d. Seeking male free from hang-ups, not into conflict, can enjoy teenage children. For friendship, fun and good times. Brisbane. Reply: SS (GR 111), C/- PO Box 242, EUROA 3666.

GYPSY MALE, FIFTY, SW Qld, hard worker, smoker, occasional drinker. Love country music, bush, fishing. Seeking lady 40-50, who is sincere, caring, loving, romantic, with no ties, for r/ship, who is looking for the same, reply with photo and ph no. Please write: KH (GR 111), C/- PO Box 242, EUROA 3666.

OK LADY, 50, reading Nisargadatta. Anyone

else? Patricia (GR 111), C/- PO Box 242, EUROA 3666.

MALE. I don't believe age is important, seek female for special friendship. Start off writing first. I like all music, movies and fun. Write to: Stuart Mitchell, 12 Bowmans Rd, BLACKBUTT 4306.

HIPPIE DOCTOR, musician, yogi, artist, invites medicine woman, masseuse, yogini, or special lady of spiritual quality to share healing forest sanctuary, alternative vegetarian lifestyle, orchard, permaculture gardens, campfire music. Devotion to peace, healing, open heart. Option to practise in registered natural health clinic if desired. Dr K (GR 111), C/- PO Box 242, EUROA 3666.

I WOULD LIKE TO MEET a slim lady, age open, who desires to live on a boat to cruise the Qld coast, for perm r/ship. So if you think you would like this type of lifestyle please write to: Len Patterson, 62 Wharf St, ROCKHAMPTON 4700.

VICTORIA

PETITE LADY, 40s, seeks someone to set up a perm home with. I am into astrology, permaculture, naturopathy, vegetarianism. Call me on 03-350-7116 Melbourne if you want same. I need help to survive the rat race or escape it. **FIT & ACTIVE** alternative lifestyle, 33 yo, vegetarian male with own rural home & land seeks r/ship with evolving, sensitive lady. PO Box 320, COLAC 3250. Ph: 052-351-403.

WANTED: MALE WITH A HEART. Must be independent with own life. A large amount of energy accompanied by an active body would be great. Broad interests, inquisitive mind, mischievous personality and a healthy sense of fun essential. Anyone fitting this description can reply to: Veronica (GR 111), C/- PO Box 242, EUROA 3666.

TALL, SLIM MALE, 46, living nth central Vic, seeks female partner 40s. Must be smoke-free and into healthy GR lifestyle. TSM (GR 111), C/- PO Box 242, EUROA 3666.

I AM 30, FEMALE, happy & healthy, seeking gentle sensitive, spiritual man, good sense of humour, zest for life, aged approx 30-40, to share committed, fulfilling family life. Strike a chord? Please write! RD (GR 111), C/- PO Box 242, EUROA 3666.

ORGANIC FARMER, 33, seeks l/lasting companionship with a loving, caring lady who enjoys country life. I am honest, caring, clean, hard working, blue eyes, brown hair 5'10", n/smoker, s/drinker, WWOOF host. My interests incl nature, camping, reading, music, alternative medicine/therapies, dining-out, cooking, walking & farming. Reply: Paul (GR 111), C/- PO Box 242, EUROA 3666.

HAPPY, POSITIVE, country-loving Christian lady, n/s, loves bushwalking, animals, reading, music, horticulture, camping, deserted beaches. Seeks caring, affectionate, communicative, active (Protestant) Christian man under 55. Contact: NG, C/- PO Box 338, LEONGATHA 3953.

If you doubt the wisdom of replying to any ad - trust your intuition.

GRASSIFIEDS

CONTACTS

VICTORIA

MALE, MID 40s, 5'8", 12 stone, n/s, s/d, own home, few acres central Vic. Interests walking, reading, animals, gardening, music. Seeks n/s lady to 50 yrs, similar interests, view perm r/ship. Leo (GR 111), C/- PO Box 242, EUROA 3666.

CARING FORTY yo, normal, healthy male. No hang-ups, n/s, s/d, own business in beautiful part of Victoria. Loves travel, cycling, music and children. Seeking woman 30-40 to share the adventure, photo appreciated. Reply: JF (GR 111), C/- PO Box 242, EUROA 3666.

MALE THIRTY-EIGHT, living in country Gippsland. Diet conscious & healthy, n/s, s/d, and R/C. A nat pks ranger, I enjoy my work and visiting my few acres on weekends etc. I'm hoping to correspond with a female and explore compatibility. Gippslander (GR 111), C/- PO Box 242, EUROA 3666.

SOUTH AUSTRALIA

CREATIVE LADY, young 55, employed, n/s, SOH. Into country living, animals, gardening, travel, exploring, fishing, arts, crafts, cooking. Seeking intelligent, honest, caring, n/s, financially stable male for 'lasting togetherness'. I am willing to relocate. Aquarius (GR 111), C/- PO Box 242, EUROA 3666.

VIRGO MALE, 37, architect, 5'7", looking for nth European lady, 25-35, Capricorn or Taurus for perm r/ship. R Brunner, 50 Kintyre Rd, WOODFORDE 5072.

TASMANIA

MALE, THIRTY-SIX, 5'6", 10 st, well educated, travelled, good looks, perceptive, serene, honest, caring, n/s, athletic, Libran. I'm seeking an aware, intelligent, feminine woman around 30, who values a quiet, healthy, coastal lifestyle. I enjoy surfing, learning, films, gardening, home life, reading. I have no children but would like to work at a r/ship for this. Reply: K, Tas (GR 111), C/- PO Box 242, EUROA 3666.

VEGETARIAN MALE, young, active 45, 175 cm, 70 kg, n/s, s/d, good looks, down to earth, outdoor nature, environment lover. Interests are alternative lifestyle, building home & garden near the sea, fishing, scuba, bushwalking, wining/dining, music, theatre, fun. Presently living/working in WA, moving to east coast Tas later, would like to share with attractive lady 30-40 who has similar dreams and looking for a happy lasting r/ship. Reply with ph no & photo please, ALA, to: Scorpion WA (GR 111), C/- PO Box 242, EUROA 3666.

WESTERN AUSTRALIA

GOODLOOKING MAN, 39, born Welsh countryside, fair, blue eyes, Aquarian, generous heart. Likes Tao, healing arts, earth mothers, stone circles, passion, creativity. Seeking intelligent woman with similar spirit, able to travel overseas occasionally. Write: LW, 3 Newstead Crescent, PARMELIA 6167.

BUSH LOVER FROM THE KIMBERLEYS, active 49 yo, n/s, n/d, self-employed, bush

PLEASE ENSURE THAT YOUR AD
REACHES US BEFORE OUR

DEADLINE:

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walker, bee keeper, builder, active conservationist, own home. I'm searching for my soul partner, a lady with open mind to share our dreams, our lives, kids OK. I'm prepared to work hard to achieve our goals and to have as much fun as possible in between. If you would like to become my friend write: PO Box 294, BROOME 6725. Ph: 091-921-371.

OTHER

PENFRIENDS OVERSEAS/AUSTRALIA. Please send SAE, PO Box 3311, WESTON 2611. AUSTRALIA.

LOOKING FOR GARY FRANCIS, of Surrey Downs and Hope Valley SA 1984! Have you built your forest yet, special man? Paint me another picture with your beautiful words! Lorna Fitzpatrick, 118 Ocean Pde, BURLEIGH HEADS 4220. (Formerly NSW).

FILIPINA WOMAN, 49 yo, would like to meet sincere and loving man. Age between 49-56, in

view of marriage. I'm loving, caring and a genuine person. I'm visiting a relative in Australia at the moment. June (GR 111), C/- PO Box 242, EUROA 3666.

CANTERBURY INTRODUCTIONS, discreet & courteous. For more info write to: PO Box 583, NANANGO 4615. Total cost \$20.

ATTRACTIVE FILIPINA WOMAN with one 2 yo daughter, seeking penpal with view to perm r/ship. I am 25 yo and 5' tall. Honest and caring. Address: 152-B, Katipunan St, Labangon Cebu City, PHILIPPINES 6000.

PENFRIENDS. Make new friends, share interests, ideas & hobbies. We have hundreds of members aged 17-76, Australia & worldwide. Please write for free membership & special offers to: Penlink, PO Box 303, BUSSELTON 6280.

SEEKING BARRY WEST from Bathurst Holloways 1969, Kuranda 1971. Contact: Diana 070-559-534.

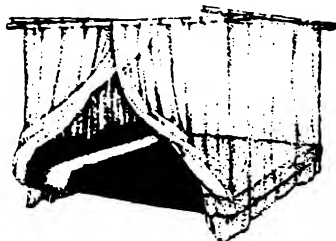
LATE GRASSIFIED

FOR SALE. STPATRICK'S DAY cards for 17th March, original hand drawn, professionally printed, black & white, Aussie Irish flavour. \$10 for set of six incl postage. Order early. Good value. Terrie, 12 Dawn Ave, CHESTER HILL 2162.

MISSABOTTI IMPORTS MOSQUITO NETS



Elegant 'INDIAN' design
3 metre drop
2.5 metre circumference at base
100% cotton
Floor to ceiling door
Hoop included
To fit King, Queen, Double
(Also comes in Single/Cot size)
Large \$100 Single \$55



Spacious 'EAST ASIA' design
100% cotton
Comes in four sizes

	Drop	Lth	Wth	
King	2.5 mtr	x 2mtr	x 2mtr	\$100
Queen	2.5mtr	x 2mtr	x 1.5 mtr	\$90
Double	2.5mtr	x 2mtr	x 1.3 mtr	\$80
Single	2mtr	x 2mtr	x 1 mtr	\$50

Prices include
postage and handling within Australia.

Unlike synthetic fibre pure cotton allows maximum ventilation and does not attract dust. In a range of sizes to suit all tastes and bed-sizes, these AAA quality nets come with a money back guarantee.

A peaceful nights sleep for the whole family: pesticide free, bug free.

Send cheque or money order to:

MISSABOTTI IMPORTS, PO Box 75 Bowraville 2449. Phone 065-644-005.

POETRY

CINQUAIN – DRAGONFLY

Dragonfly,
funny, winged,
darting, hovering, looking,
zooming over river's glaze,
masterpiece.

Linda Dale.

WHITE KNIGHTS

Eucalyptus in parkland setting.
White river pebbles glisten
In the moonlight
On the path
Winding in a curved S
Around the house.
Foxtail palms
Sleek stems with bushy tails
Showing the way
Along one side
Shifting to the other
Embracing the drive.
Poinsettias
The red glowing dark.
Snowflakes peeping
White above
snowing down on the red.
On the bed of yellows
married with greens
And whites
The moon plays
His pale lights.
Ghost gums in the
Background
Guard the house
Like white knights
safely.

Gisela McIntyre.

UNCOVER

Lift it up, stealthily as if some
smooth serpent lies in the crack
between earth and concrete, quickly
lift up, punch over and there...
nothing at all – a smooth hairless
imprint of where this piece of tin
has lain discarded to seal ground and air,
for time has dallied here.

Lorraine Marwood.

EERIE LIGHT

A strange light, is this,
almost a glow,
yet the grey clouds
curtain the blue.
Did I say grey:
Well they are,
yet they glow too
with a yellow-pink
eerie colour. A hint
of something different,
perhaps a promise,
like a pre-snow sky.

A flock of birds
winging in playful flight,
silent of voice,
dart against the glow
as though they know
that something exceptional
hangs, captured, within the soft grey.

I see myself reflected
in the clouds,
and this strange light
glowing, somewhere, inside.
A promise to be fulfilled?
A glow of love?

Joy Brisbane.

THE FARM

Grass-dew and clover
skeletal trees upon the ridge
creeks, dams and bushland
waving grass
and heat-baked gravel
Mother burning off the logs
father herding sheep
deep into the night
breathing mist
coming through the kitchen door.
Parrots in the orchard
and the never-ending work –
scrub-cut, plough
muster, shear
press wool, fence
and endure the winter's frost and snow
and summer's heat.
We despaired
of disjointed schooling.
The farm repelled
and attracted all at once.
But while we hated it
it drew us back,
the rhythms of the seasons
embedded in our souls.
I guess we recalled
the cool waters
of the streams
the lazy casuarinas
the dark, succulent kurrajong trees
the light forest
blanketing the hillsides:
the snakes, the kangaroos,
turtles, lizards
horses sheep and cattle
that populated our domain.
Therein lies the secret:
it was our little kingdom,
each of us an earl.

Ben W Schiemer.



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